



A REPORT
TO THE
MONTANA
LEGISLATURE

LEGISLATIVE AUDIT
DIVISION

20-09A

FINANCIAL-COMPLIANCE AUDIT

Teachers' Retirement Board

*For the Fiscal Year Ended
June 30, 2020*

JANUARY 2021

**LEGISLATIVE AUDIT
COMMITTEE**

REPRESENTATIVES

KIM ABBOTT

Kim.Abbott@mtleg.gov

DAN BARTEL

Danbartel2@gmail.com

DENISE HAYMAN, CHAIR

Denise.Hayman@mtleg.gov

EMMA KERR-CARPENTER

Emma.KC@mtleg.gov

TERRY MOORE

terry.moore@mtleg.gov

MATT REGIER

Matt.Regier@mtleg.gov

SENATORS

JASON ELLSWORTH, VICE CHAIR

Jason.Ellsworth@mtleg.gov

JOHN ESP

Johnesp2001@yahoo.com

PAT FLOWERS

Pat.Flowers@mtleg.gov

TOM JACOBSON

Tom.Jacobson@mtleg.gov

TOM MCGILLVRAY

Tom.McGillvray@mtleg.gov

MARY McNALLY

McNally4MTLeg@gmail.com

MEMBERS SERVE UNTIL A
MEMBER'S LEGISLATIVE TERM
OF OFFICE ENDS OR UNTIL A
SUCCESSOR IS APPOINTED,
WHICHEVER OCCURS FIRST.
§5-13-202(2), MCA

FRAUD HOTLINE
(STATEWIDE)
1-800-222-4446
(IN HELENA)
444-4446
LADHotline@mt.gov
www.montanafraud.gov

FINANCIAL-COMPLIANCE AUDITS

Financial-compliance audits are conducted by the Legislative Audit Division to determine if an agency's financial operations are properly conducted, the financial reports are presented fairly, and the agency has complied with applicable laws and regulations. In performing the audit work, the audit staff uses standards set forth by the American Institute of Certified Public Accountants and the United States Government Accountability Office. Financial-compliance audit staff members hold degrees with an emphasis in accounting and many staff members hold Certified Public Accountant (CPA) certificates.

The Single Audit Act Amendments of 1996 and the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards require the auditor to issue certain financial, internal control, and compliance reports in addition to those reports required by *Government Auditing Standards*. This individual agency audit report is not intended to comply with these reporting requirements and is therefore not intended for distribution to federal grantor agencies. The Legislative Audit Division issues a statewide biennial Single Audit Report which complies with the above reporting requirements. The Single Audit Report for the two fiscal years ended June 30, 2019, was issued March 30, 2020. The Single Audit Report for the two fiscal years ended June 30, 2021, will be issued by March 31, 2022.

AUDIT STAFF

JENNIFER ERDAHL
SHENAE STENSAAS

KATIE MAJERUS
KELLY ZWANG

Reports can be found in electronic format at:
<https://leg.mt.gov/lad/audit-reports>

LEGISLATIVE AUDIT DIVISION

Angus Maciver, Legislative Auditor
Deborah F. Butler, Legal Counsel



Deputy Legislative Auditors:
Cindy Jorgenson
William Soller

January 2021

The Legislative Audit Committee
of the Montana State Legislature:

This is our financial-compliance audit report on the Teachers' Retirement Board, a component unit of the State of Montana, for the fiscal year ended June 30, 2020. This report contains our Independent Auditor's Report which includes an unmodified opinion, meaning the reader can rely on the information presented. The report includes one recommendation to the board related to internal controls over financial reporting of contribution revenue, withdrawal expenses, and prior period adjustments. Also included in the report is a disclosure issue related to the use of different assumptions used for the funding valuation and financial reporting calculations.

The report also includes the board prepared financial statements, related notes to the financial statements, required supplementary information, and supplementary information. Additional information about the Teachers' Retirement System's total and net pension liability, investments, contributions, and expense data is included in the required supplementary information and supplementary information.

The board's written response to the audit is included in the audit report at page C-1. We thank the Executive Director and his staff for their cooperation and assistance throughout the audit.

Respectfully submitted,

/s/ Angus Maciver

Angus Maciver
Legislative Auditor

TABLE OF CONTENTS

Figures and Tables.....	ii
Appointed and Administrative Officials	iii
Report Summary	S-1
CHAPTER I – INTRODUCTION AND BACKGROUND	1
Audit Scope.....	1
Background.....	2
Actuarial Soundness.....	2
Pension Liability.....	3
CHAPTER II – FINDINGS AND RECOMMENDATION	5
Internal Controls Over Financial Reporting.....	5
Contribution Revenue Accrual Procedures	6
Wage and Contribution Adjustments.....	6
Membership Error Adjustments	7
Summary	8
DISCLOSURE ISSUE	11
Assumption Differences: Funding Valuation versus Financial Reporting Calculations	11
INDEPENDENT AUDITOR’S REPORT AND SYSTEM FINANCIAL STATEMENTS	
Independent Auditor’s Report	A-1
Management’s Discussion and Analysis	A-5
Statement of Fiduciary Net Position.....	A-9
Statement of Changes in Fiduciary Net Position.....	A-10
Notes to the Financial Statements.....	A-11
Required Supplementary Information	A-34
Supplementary Information	
Schedule of Administrative Expenses.....	A-48
Schedule of Investment Expenses/Schedule of Payments to Consultants.....	A-49
REPORT ON INTERNAL CONTROL AND COMPLIANCE	
Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With <i>Government</i> <i>Auditing Standards</i>	B-1
BOARD RESPONSE	
Teachers’ Retirement Board	C-1

FIGURES AND TABLES

Figures

Figure 1	Teachers' Retirement System Reporting Process	9
Figure 2	Actuarial Accrued Liability vs. Total Pension Liability	12

Tables

Table 1	Teachers' Retirement System Amortization Periods	2
Table 2	Teachers' Retirement System Total and Net Pension Liability	3
Table 3	Actuarial Accrued Liability and Total Pension Liability Calculation Elements.....	11

APPOINTED AND ADMINISTRATIVE OFFICIALS

			<u>Term Expires</u>
Teachers' Retirement Board	Kari Elliot, Chair	Kalispell	July 2022
	Scott Dubbs, Vice Chair	Lewistown	July 2023
	Daniel Trost	Helena	July 2024
	Daniel Chamberlin	Whitefish	July 2025
	Janice Muller	Billings	July 2021
	Jeff Greenfield	Shepherd	July 2021
Administrative Officials	Shawn Graham, Executive Director		
	Tammy Rau, Deputy Executive Director		
	Nolan Brilz, Accounting and Fiscal Manager		
	Denise Pizzini, Chief Legal Counsel		

For additional information concerning the Teachers' Retirement System, contact:

Shawn Graham, Executive Director
 100 N. Park Avenue, Suite 110
 P.O. Box 200139
 Helena, MT 59620-0139
 e-mail: shawngraham@mt.gov
 Phone: (406) 444-3134



MONTANA LEGISLATIVE AUDIT DIVISION

Teachers' Retirement Board

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

BACKGROUND

The Teachers' Retirement Board (board) administers the Teachers' Retirement System (system) which is a multiple-employer, cost-sharing, defined-benefit, public pension plan. The board is a fiduciary component unit of the State of Montana. Full-time members of the public teaching profession, including administrative and professional staff, are required by law to be members of the system.

The Montana Constitution requires the system to be funded on an actuarially sound basis. Board policy requires any unfunded liability of the system to amortize over a closed period of no more than 30 years. The most recent actuarial valuation, performed as of July 1, 2020, found the unfunded liability of the system amortizes within 29 years.

Teachers' Retirement Board
Chair: Kari Elliot

Executive Director:
Shawn Graham

The Teachers' Retirement System received approximately \$229 million in contributions and paid approximately \$384 million in benefits during fiscal year 2020. Our audit identified internal control deficiencies over financial reporting of contribution revenue, withdrawal expenses, and prior period adjustments.

AUDITOR'S OPINION (page A-1): **UNMODIFIED**

We found the system's financial statements and note disclosures presented fairly the activity of the system in all material respects and issued an unmodified opinion. This means a reader can rely on the information presented and the underlying financial records.

For the full context of the board's financial activity, see the financial statements and notes beginning on page A-5.

RECOMMENDATIONS:

In this report, we issued the following recommendations:

To the board: 1

To the legislature: 0

The prior audit report contained no recommendations.

RECOMMENDATION #1 (page 5):

Internal Controls

As part of the audit, we identified approximately \$368,000 in financial statement errors related to the board incorrectly recording wage and contribution adjustments and membership error adjustments to incorrect fiscal years. While the dollar amounts identified as part of the audit are immaterial to the fiscal year 2020 financial statements, the board's internal controls should still be improved to ensure proper financial reporting in the future. Additionally, we determined the board does not have sufficient internal controls to ensure the contribution revenue reported on their financial statements is reasonably complete and accurate.

We recommend the board improve internal control procedures to ensure accurate contribution revenue, withdrawal expense, and prior period adjustments are reported in accordance with Generally Accepted Accounting Principles.

Board response: **Concur**

For the full report or more information, contact the Legislative Audit Division.

leg.mt.gov/lad

Room 160, State Capitol
PO Box 201705
Helena, Montana 59620
(406) 444-3122

The mission of the Legislative Audit Division is to increase public trust in state government by reporting timely and accurate information about agency operations, technology, and finances to the Legislature and the citizens of Montana.

To report fraud, waste, or abuse:

Online
www.Montanafraud.gov

Email
LADHotline@mt.gov

Call
(Statewide)
(800) 222-4446 or
(Helena)
(406) 444-4446

Text
(704) 430-3930

DISCLOSURE ISSUE (page 11)

The board's actuary used different assumptions between the funding valuation and financial reporting calculations. If the same assumptions were used for the funding valuation as were used for the financial reporting calculation, the amortization period for the system would be higher. Because nothing precludes using different assumptions for these two separate calculations, we make no recommendation, but disclose this for informational purposes.

REPORT ON INTERNAL CONTROL AND COMPLIANCE (page B-1):

In this report, we identified the following:

Material Weaknesses in Internal Control: 0

Significant Deficiencies in Internal Control: 1

Material Non-Compliance: 0

Other Matters: 0

For the full context of this information, including the distinction between the types of items reported, see the report beginning on page B-1.

Chapter I – Introduction and Background

Audit Scope

We performed a financial-compliance audit of the Teachers' Retirement Board (board) for the fiscal year ended June 30, 2020. The objectives of our audit were to:

1. Determine whether the Teachers' Retirement System's (system) basic financial statements present fairly, in all material respects, the financial position and the results of operations as of June 30, 2020.
2. Obtain an understanding of the board's controls to the extent necessary to support our audit of the system's financial statements and make recommendations for improvement in the internal controls, if appropriate.
3. Determine compliance with selected applicable laws and regulations.
4. Perform the work necessary over the supplemental information to determine whether that information is fairly stated, in all material respects, in relation to the basic financial statements taken as a whole.

Our audit work included reviewing support for contribution receipts, benefit payments, and determining the reasonableness of investment balances and associated net investment income. We considered the board's control systems throughout the audit, including the computer system used by the board to electronically process contributions and benefits. We also performed testing to determine the accuracy of the data in this system. We reviewed the financial statements and note disclosures to determine if they were supported by the underlying accounting records and the actuarial valuation as of June 30, 2020. We also evaluated compliance with selected laws and regulations.

We completed testing of 84 new employees at 39 different employers across the state as well as analytical procedures over the system as a whole to determine the accuracy and completeness of important member census data such as gender, birthdate, hire date, salary, and employment status that is used by the actuary to calculate the total pension liability. This is the seventh year we have performed such testing and we have tested a different group of individual employers each year. No material errors were identified in the testing of the census data to indicate the calculation of the total pension liability is inaccurate. We also hired an independent actuary to provide actuarial expertise during the audit, including reviewing the system's actuarial valuation for overall reasonableness.

There is a disclosure issue associated with the assumptions used for the most recent valuation beginning on page 11.

We issued an unmodified opinion on the system's financial statements for fiscal year 2020, meaning a reader can rely on the information presented in the financial statements.

Background

The board is a fiduciary component unit of the State of Montana. A component unit is a legally separate organization for which the State of Montana is financially accountable. The six-member board, appointed by the governor for five-year terms, governs the system. In addition to providing oversight to system personnel, the board's responsibilities include establishing rules and regulations necessary for the administration and operation of the system and hiring an actuary to provide consultation on the technical actuarial aspects of the retirement system. The executive director and board personnel are responsible for the daily administration of the system. At June 30, 2020, 21 full-time equivalent (FTE) positions were authorized for the system.

The system is defined as a multiple-employer, cost-sharing, defined-benefit, public pension plan. Full-time members of the public teaching profession, including administrative and professional staff, are required to be members of the system. However, certain employees of the Montana University System hired after July 1, 1993, are not required to be members. The system had approximately 19,750 active contributing members and 16,700 terminated employees not yet receiving benefits at July 1, 2020. There were 16,605 retirees or their beneficiaries receiving retirement, disability, or survivor benefits as of July 1, 2020.

Actuarial Soundness

Article VIII, Section 15, of the Constitution of the State of Montana requires defined benefit public retirement systems to be funded on an actuarially sound basis. Teachers' Retirement Board policy further requires any unfunded liability of the system to amortize over a closed period of no more than 30 years. The most recent actuarial valuation, performed as of July 1, 2020, found the unfunded liability of the system amortizes within 29 years. Table 1 shows the amortization period for the system at June 30 for the past five years.

The maintenance of the amortization period from 2019 to 2020 is primarily due to smoothing

Table 1
Teachers' Retirement System
Amortization Periods

	Amortization Period
June 30, 2020	29
June 30, 2019	29
June 30, 2018	31
June 30, 2017	22
June 30, 2016	24

Source: Compiled by the Legislative Audit Division from Teachers' Retirement System actuarial information.

of actuarial gains and losses over four years and having more Tier II members in the system, whose projected cost is lower.

Pension Liability

The financial statement notes and required supplementary information disclose the total and net pension liabilities for the system as well as additional investment and contribution data. The total pension liability is the actuarial present value of projected benefit payments attributable to past periods of member service. The net pension liability is a measure of the extent to which the total pension liability is not covered by the fiduciary net position of the pension plan. The total pension liability and net pension liability for the system at June 30, 2020, were approximately \$6.4 billion and \$2 billion, respectively. Table 2 shows the total and net pension liabilities for the system at June 30, 2019, and 2020.

Table 2
Teachers' Retirement System Total and Net Pension Liability

	Total Pension Liability	Net Pension Liability
June 30, 2020	\$6,417,298,230	\$2,249,458,672
June 30, 2019	\$6,148,556,456	\$1,928,270,704
Increase between years	\$268,741,774	\$321,187,968

Source: Compiled by the Legislative Audit Division from Teachers' Retirement System actuarial information.

Generally, the net pension liability will increase as members complete an additional year of service and if investment returns are less than the assumed rate of return. Changes in the underlying actuarial assumptions can also cause fluctuations in the liability. The disclosure issue beginning on page 11 discusses one such change.

Chapter II – Findings and Recommendation

Internal Controls Over Financial Reporting

The Teachers' Retirement Board (board) should improve internal controls to ensure complete and accurate financial reporting of contribution revenue, withdrawal expenses, and prior period adjustments.

Monthly, participating employers report wages paid to employees to the Teachers' Retirement System (system) via the pension administration computer system, M-Trust. M-Trust calculates the required contributions based on these wages, prompting employers to remit the required payments. Board staff record contribution revenue on the state's accounting system when they receive the employer reports. During the fiscal year-end period, staff record revenue and a corresponding receivable for the payments received from employers after June 30, but before the accounting system is closed for the year that belong to June payrolls. Staff do everything they can to make sure all employers report their June payrolls before doing the accrual, including running reports from M-Trust and following up with employers. If employers identify errors or changes that need to be made in reported wages and contributions paid, they report an adjustment directly in M-Trust or contact board staff to initiate an adjustment. Most of these adjustments involve small dollar amounts and are for instances such as incorrectly including sick or vacation leave payouts for an employee. Although less common, adjustments for large dollar amounts can happen when an employer fails to report a payroll entirely or reports the same payroll twice. Board staff record these adjustments to contribution revenue on the state's accounting system at the time they are made in M-Trust.

As required by state accounting policy and Generally Accepted Accounting Principles (GAAP), board staff prepare its financial statements on a full-accrual basis. This means revenues and expenses should be recorded when the underlying event occurs, not when the cash actually changes hands. Thus, revenues should be reported when they are realizable, measurable, and earned, while expenses should be reported when a valid obligation exists. In addition to reporting financial statements in accordance with GAAP, state accounting policy also requires the board to establish and maintain internal controls and procedures designed to verify the accuracy and reliability of financial data and to help ensure compliance with applicable laws and regulations.

Board staff believe the system's laws place the responsibility and obligation for complete, accurate, and timely reporting of member service and compensation to the system on the individual employers. However, this does not relieve the board's responsibility to

comply with GAAP, which is also outlined in state law, and ensure complete and accurate contribution revenue financial reporting. There is a difference between the board having to verify each and every employer's M-Trust reporting and having sufficient internal controls to ensure the contribution revenue reported on their financial statements is reasonably complete and accurate. This recommendation is related to the latter. The following three sections discuss areas where the board's internal controls need to be improved for financial reporting purposes related to contribution revenue accrual procedures, recording wage and contribution adjustments, and recording membership error adjustments to ensure compliance with state accounting policy and GAAP.

Contribution Revenue Accrual Procedures

Board staff currently do not do any overall analytical procedures to determine whether current year reported revenues are reasonably complete and accurate. Staff have access to M-Trust, which has all of the historical employer payroll and contribution information and allows them to complete overall analytical procedures, even before the information is recorded on the state's accounting system.

Examples of analytical procedures include:

- ◆ Comparing the number of times employers reported wages and contributions in the current year to prior years.
- ◆ Comparing the amount of wages or contributions reported to those in the prior year for consistency with payroll growth assumptions and following up on significant differences.

Staff did perform a comparison of employer contributions between fiscal years 2019 and 2020 as part of the financial statement preparation process, but they did not follow up on differences identified as they have not yet determined what threshold to use to determine which differences warrant follow-up. We reviewed M-Trust reports of employer payments and looked into seven situations where employers reported twice in one month or had negative wage adjustments in the months around fiscal year-end 2020 and did not identify any instances of employers making up for past missed reports or adjusting prior years' contributions other than the instance noted in the other sections of this recommendation.

Wage and Contribution Adjustments

As mentioned above, board staff use reports from M-Trust to record an accrual at the end of each fiscal year for June contributions received in July. This is the only process staff complete to ensure the contribution revenues the system receives are complete and accurate. While this process would identify if an employer did not report and was thus

delinquent, there is no indication staff would estimate and accrue contribution revenue for that delinquent employer. Additionally, this would not identify whether there was an overpayment or underpayment unless an employer reported it to the system through an adjustment. As a result, staff could be recording revenue the system is not entitled to, or, conversely, not recording the full amount they are entitled to.

Staff stated that once the accounting system has been closed for the year, they are unable to correct for contribution revenue adjustments even if they find them, and therefore they have no choice but to report them in the current fiscal year. However, because the system issues financial statements, they are able to make adjustments to the amounts on the underlying accounting records for errors they have identified as part of the statement preparation process in order to report the correct amounts on the financial statements; this is a common occurrence for board staff for other activity they report.

We reviewed four revenue adjustment transactions in fiscal year 2020 and identified one instance of an employer reported adjustment for overpayments in May 2019. Board staff recorded this revenue adjustment when reported in fiscal year 2020, resulting in the current contribution revenue being understated by approximately \$76,000 on the financial statements. In our limited review of the wage and contribution adjustments discussed above, we did not identify any instances where employers reported adjustments for fiscal year 2020 contribution revenue in fiscal year 2021. However, we did identify instances where employers had unusual reporting activity. For example, one school reported 14 times for fiscal year 2020: typically monthly wages were approximately \$550,000 and included on one report; for December 2019, they reported twice for a total of approximately \$810,000; for February 2020, they reported twice for a total of approximately \$550,000; and for March, they reported once for a total of approximately \$268,000. Because many members of the system are contracted teachers, it is unusual to see such large differences in reported wages from month to month during the school year and could indicate errors in the reporting.

Membership Error Adjustments

In addition to the wage and contribution error adjustments discussed above, employers can report a membership error adjustment. In this type of adjustment, an employer has identified an employee who has been reported to the system but does not meet the requirements for membership. The employer reports a negative adjustment for the employee's total wages in M-Trust. Staff then send the amount of contributions paid for, along with the interest credited to the employee, to the Montana Public Employees' Retirement Administration (MPERA) to be included in the Public Employees' Retirement System (PERS), if the member chooses to enroll in PERS, or back to the

employer. Because the contribution rates are different between the two systems, the amount of this difference is refunded to the employer and employee. Board staff record these payments as withdrawals from the system in the accounting records and the financial statements at the time they are made. In fiscal year 2020, there were at least five different employees who were moved from the Teachers' Retirement System to PERS and one employee who was removed from the system but chose not to participate in PERS, with a total of approximately \$292,000 of contributions sent to MPERA and the employers.

Staff stated that the M-Trust system is designed to handle the membership error adjustments as withdrawals and they believe this is the most accurate and efficient way to report them. While these instances can be recorded as withdrawals in M-Trust, they should not be reported that way on the financial statements as the employees did not leave employment and decide to withdraw from the system. Rather, they should not have been in the system to begin with, and their contributions from prior years never should have happened and should be reported as corrections of errors.

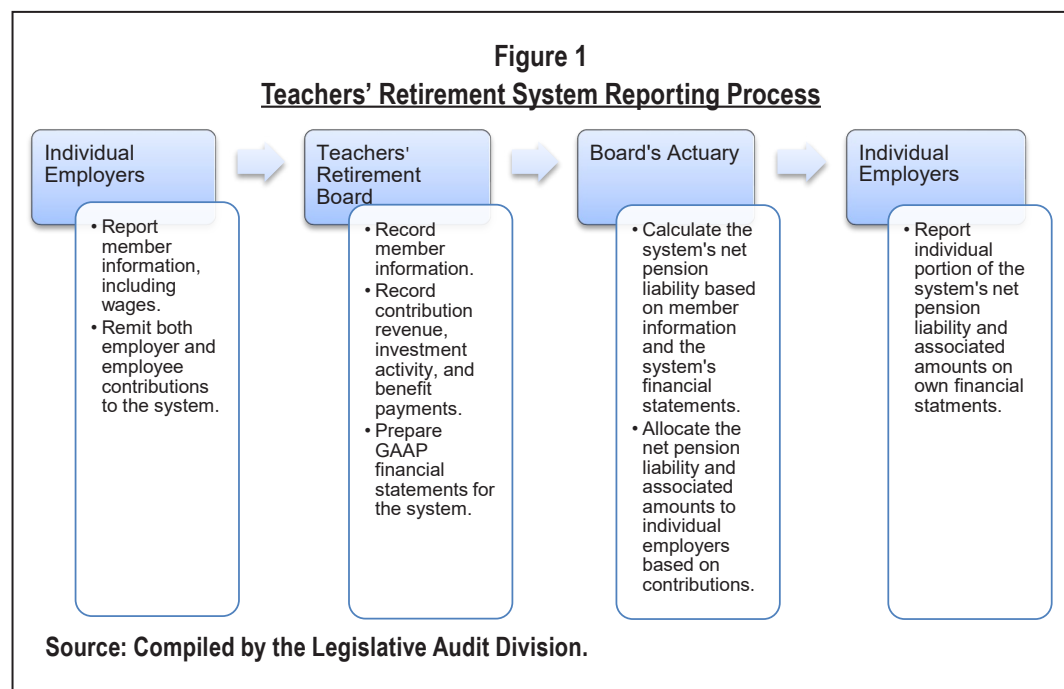
Summary

Both state accounting policy and GAAP acknowledge that errors in financial reporting can happen, and outline what to do when they are discovered. When an error is discovered before the financial statements are issued, board staff has the ability to adjust the financial statements to reflect the correct information. However, when an error on the financial statements is discovered after issuance, it should be reported as a prior period adjustment on the Statement of Changes in Fiduciary Net Position and the nature of the error and the effect of the correction should be disclosed in the notes in the year it is discovered. By not recording prior period adjustments for the errors corrected in fiscal year 2020 that belonged to prior fiscal years, contribution revenues were understated by approximately \$76,000, withdrawals were overstated by approximately \$292,000, and prior period adjustments were understated by approximately \$368,000 on the system's financial statements.

We communicated the contribution revenue, withdrawal expenses, and prior period adjustments errors discussed above as part of the audit. Board staff determined the amounts communicated were immaterial to the financial statements and note disclosures and made no adjustments to correct them. We agreed with this determination and, accordingly, the financial statements and note disclosures presented in this report are accurate in all material respects. While the dollar amounts identified as part of the audit are immaterial to the fiscal year 2020 financial statements, the board's internal controls should still be improved to ensure proper financial reporting in the future. Additionally, we determined the lack of analytical procedures to correctly report

contribution revenue is a significant deficiency since contribution revenue is essential to system operations and a main source of revenue for the system. A deficiency in the internal controls related to this activity warrants the attention of those charged with governance.

The contribution information reported by each employer and the total reported on the financial statements are also used as the basis for determining each employer's share of the system's net pension liability reported in the next fiscal year, as demonstrated in Figure 1 below. Adjustments to contribution amounts affect the individual employer's amount, which means the allocation percentage for all employers is impacted to varying degrees, potentially resulting in misstatements in employer financial reports.



RECOMMENDATION #1

We recommend the Teachers' Retirement Board improve internal control procedures to ensure accurate and complete reporting of contribution revenue, withdrawal expenses, and prior period adjustments for the Teachers' Retirement System.

Disclosure Issue

Assumption Differences: Funding Valuation vs. Financial Reporting Calculations

To determine the amortization period discussed in the actuarial soundness section above, the Teachers' Retirement Board's (board) actuary calculates an actuarially accrued liability, which is the actuarial present value of projected pension plan benefits and expenses. The actuarial value of the system's assets is then subtracted from this amount to determine the unfunded actuarial accrued liability (UAAL).

To determine the total pension liability and the net pension liability reported in the system's financial statement notes and required supplementary information, the board's actuary calculates the actuarial present value of projected benefit payments attributable to past periods of member service. The system's net position is then subtracted from this amount to determine the net pension liability (NPL).

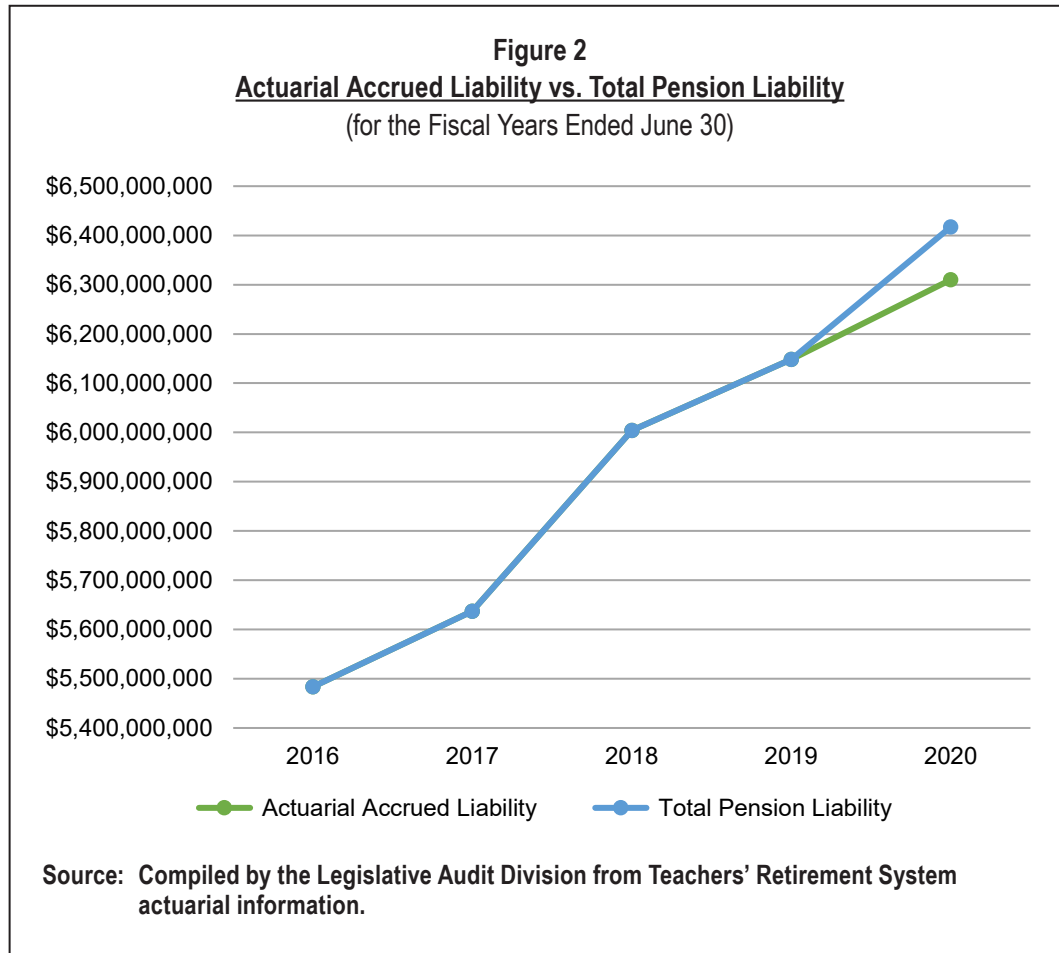
These calculations sound very similar, but have a few important differences:

Table 3
Actuarial Accrued Liability and Total Pension Liability Calculation Elements

	Actuarial Accrued Liability	Total Pension Liability
Actuarial gains and losses are smoothed over 4 years	X	
Blended rate of return can be used		X
Rate of return is net of investment expenses	X	X
Rate of return is net of administrative expenses	X	
Market value of assets is used		X
Actuarial value of assets is used	X	

Source: Compiled by the Legislative Audit Division based on Generally Accepted Accounting Principles and Actuarial Standards of Practice.

Even though these two measures are calculated with slightly different methodologies, the results are typically similar. However, as you can see in Figure 2 (see page 12), the two liability measures are approximately \$107 million apart for fiscal year 2020.



Our independent actuary identified a difference in the economic assumptions used by the board's actuary to complete the funding valuation and the financial report analysis. While they both have a total payroll growth of 3.25 percent, the components are different. For the funding valuation, the inflation and real wage growth remained at 2.50 percent and .75 percent, respectively. For the financial report, the inflation was lowered to 2.40 percent and the real wage growth was increased to .85 percent. In the past, the assumptions have been consistent between the two analyses.

The funding valuation assumptions are approved by the board as part of the experience study process. While these assumptions can be updated between experience studies based on recommendations from the actuary, this has not happened recently, and they were last updated in May 2018. In contrast, the assumptions for the financial report are analyzed and justified by the actuary on a yearly basis and may change before the funding assumptions. As a result, the assumptions used in the financial report analysis represent the more current outlook for the system and are an early indicator of what will happen in future funding valuations. Essentially, the actuary has determined

the assumptions needed to change in order to reasonably reflect the system's current position in the financial report, as required by GAAP.

While the difference in the liability amounts between the analyses was large, it did not result in a material misstatement in the estimated total pension liability. We discussed this with management for their consideration as part of the June 30, 2021, valuation. Because management was aware of the change and there is nothing precluding the use of different assumptions in these two analyses, we make no recommendation at this time. However, if the updated assumptions were used for the funding valuation, the UAAL would more closely approximate the NPL; and the amortization period listed on page 2 would be higher.

Independent Auditor's Report and System Financial Statements

Angus Maciver, Legislative Auditor
Deborah F. Butler, Legal Counsel



Deputy Legislative Auditors:
Cindy Jorgenson
William Soller

INDEPENDENT AUDITOR'S REPORT

The Legislative Audit Committee
of the Montana State Legislature:

Introduction

We have audited the accompanying Statement of Fiduciary Net Position of the Teachers' Retirement System (system), prepared by the Teachers' Retirement Board (board), a fiduciary component unit of the State of Montana, as of June 30, 2020, and the related Statement of Changes in Fiduciary Net Position for the fiscal year then ended, and the related notes which collectively comprise the system's basic financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this responsibility includes designing, implementing, and maintaining internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal controls relevant to the board's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the board's internal control, and accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of

significant accounting estimates made by management, as well as the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Teachers' Retirement System as of June 30, 2020, and the changes in fiduciary net position for the fiscal year then ended in conformity with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Schedule of Changes in Net Pension Liability-TRS Plan, Schedule of the Net Pension Liability-TRS Plan, Schedule of Investment Returns-TRS Plan, Schedule of Employer and Non-Employer Contributing Entities Contributions-TRS Plan, Schedule of Proportionate Share of the Net Pension Liability-TRS as Employer of PERS Plan, Schedule of Contributions-TRS as Employer of PERS Plan, Other Post-employment Benefits Plan Information, and the related notes be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The Schedule of Administrative Expenses, Schedule of Investment Expenses, and Schedule of Payments to Consultants are presented for purposes of additional analysis and are not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such

information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 22, 2020, on our consideration of the board's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the board's internal control over financial reporting and compliance.

Respectfully submitted,

/s/ *Cindy Jorgenson*

Cindy Jorgenson, CPA
Deputy Legislative Auditor
Helena, MT

December 22, 2020

Management's Discussion and Analysis

The following discussion and analysis of the Montana Teachers' Retirement System's (TRS or the System) provides a narrative overview of TRS's financial activities for the fiscal year ended June 30, 2020.

Overview of the Financial Statements

The TRS financial statements, notes to the financial statements, and required supplementary information as of June 30, 2020 were prepared in conformity with GASB Statement No. 67, Financial Reporting for Pension Plans and Statement No. 68, Accounting and Financial Reporting for Pensions.

Because of the long-term nature of a defined benefit pension plan, financial statements alone cannot provide sufficient information to properly reflect the System's ongoing plan perspective. The Statement of Fiduciary Net Position reflects the resources available to pay benefits to retirees and beneficiaries. The Statement of Changes in Fiduciary Net Position presents the changes that occurred in those resources for the fiscal year ended June 30, 2020.

The Notes to the Basic Financial Statements provide additional information that is essential to gain a full understanding of the data provided in the basic financial statements. The required supplementary information (RSI) consists of the following four schedules of the defined benefit pension plan administered by TRS: changes of employers' net pension liability, employers' net pension liability, employer contributions, and the money-weighted rate of investment returns. The RSI also contains the following two schedules of the defined benefit pension plan that TRS participates in as an employer: proportionate share of the net pension liability and employer contributions.

Financial Highlights

- The TRS fiduciary net position decreased by \$52 million from \$4.220 billion at 06/30/19 to \$4.168 billion at 06/30/20, representing a decrease of 1.2% from year to year.
- The TRS plan net investment income was \$112.6 million at 06/30/20 compared to \$227.9 million at 06/30/19.
- The TRS plan rate of return on investments during FY 2020 was 2.7% compared with FY 2019 rate of return of 5.7%.
- The TRS benefit payments paid to benefit recipients increased 4.5% from \$367.8 million to \$384.4 million for FY 2020, which is consistent with previous increases.
- Withdrawals from the System decreased by 13.9% from \$6.0 million in FY 2019 to \$5.2 million in FY 2020.

Condensed Financial Information

For comparative purposes, the Condensed Financial Information for the fiscal year ended June 30, 2020 is presented with the previous fiscal year's financial information.

Fiduciary Net Position
(in millions)

	FY2020		FY2019		Percent Change
Cash/Short-Term Investments	\$	33.4	\$	137.7	(75.8%)
Receivables		17.1		16.5	3.6%
Investments (Fair Value)		4,138.6		4,084.6	1.3%
Other Assets (Net)		2.6		2.6	0.2%
Total Assets		4,191.7		4,241.4	(1.2%)
Deferred Outflows		0.3		0.4	(37.1%)
Liabilities		23.9		21.3	12.0%
Deferred Inflows		0.3		0.3	17.7%
Net Position	\$	4,167.8	\$	4,220.3	(1.2%)

Change in Fiduciary Net Position
(in millions)

	FY2020		FY2019		Percent Change
Additions:					
Employer Contributions	\$	102.4	\$	97.3	5.3%
Plan Member Contributions		80.2		78.2	2.6%
Other Contributions		45.9		45.5	1.0%
Net Investment Income		112.6		227.9	(50.6%)
Total Additions		341.2		448.9	(24.0%)
Deductions:					
Benefit Payments		384.4		367.8	4.5%
Withdrawals		5.2		6.0	(13.9%)
Administrative and Other Expenses		4.0		3.2	27.2%
Total Deductions		393.5		376.9	4.4%
Change in Net Position	\$	(52.3)	\$	72.0	(172.7%)

Financial Analysis

- The increase in Employer Contributions was due in part to HB 377 provisions that took effect in FY 2014, which increase Employer contribution rates by 0.10% each year for ten years.
- The increase in Employer, Plan Member, and Other Contributions are also due do to an increase in Reportable Compensation of the System as a whole.
- The US economy and capital market conditions experienced a positive return in FY 2020. However, FY 2019 had stronger capital market conditions. Therefore the Net Investment Income decreased year over year.
- Net investment income for FY 2020 was down from the previous fiscal year largely due to negative returns in international equities and natural resources, as well as, lower returns in domestic equities and fixed income.
- The increase in benefit payments from year-to-year reflects an increase in the number of retirees and beneficiaries, plus the 1.5% guaranteed annual benefit adjustment. The increase is comparable to previous fiscal years.
- Administrative Expenses for FY 2020 were 0.98% of Benefit Payments. By the laws set forth in the Montana Code Annotated, TRS is required to keep Administrative Expenses under 1.5% of Benefit Payments.
- The large decrease in Cash and Short-Term Investments is due to MBOI policies of reducing cash reserves and increasing investments in higher return assets.
- The increase in Administrative Expenses from FY 2019 to FY 2020 is largely attributable to Amortization and Depreciation expenses from upgrades in the TRS Pension Administration System (M-Trust), as well as, updated office space.

Overview of the Actuarial Funding

An actuarial valuation of the System is performed annually. As a result of the actuarial valuation of the benefits in effect under the Montana Teachers' Retirement System as of July 1, 2020, the statutory employer contributions are sufficient to amortize the Unfunded Actuarial Accrued Liability (UAAL) of the Retirement System within 29 years. The Funded Ratio is 68.84%.

MCA 19-20-201 requires the Valuation report to show how market performance is affecting the actuarial funding of the Retirement System. The July 1, 2020 market value of assets is \$176.2 million less than the actuarial value of assets. This is due to the smoothing of investment gains and losses over a four year period. If the market value of assets was used, the amortization period would be 35 years, and the Funded Ratio would be 66.05%.

The market assets earned 2.72% net of investment and operating expenses. As a result of cumulative unrecognized losses, the actuarial assets earned 7.00% which is 0.50% less than the actuarial assumption of 7.50%. The return on the actuarial assets differs from the return on market assets because the actuarial value of assets spreads gains and losses over four years.

The following table compares the annual returns for the past four fiscal years.

Fiscal Year	Market Return	Actuarial Return	Market Return Over/(Under) Assumption Rate	Actuarial Return Over/(Under) Assumption Rate
7/01/2016-6/30/2017	11.92%	8.24%	4.17%	0.49%
7/01/2017-6/30/2018	8.82%	6.85%	1.07%	(0.90)%
7/01/2018-6/30/2019	5.69%	7.00%	(1.81)%	(0.50)%
7/01/2019-6/30/2020	2.72%	7.00%	(4.78)%	(0.50)%

Asset gains or losses result when the return on the actuarial value of assets differs from the actuarial investment return assumption of 7.50% effective July 1, 2018.

On a market value basis the System earned \$77.4 million less than anticipated by the 7.50% assumption in the year ended June 30, 2019 and \$197.8 million less than anticipated by the 7.50% assumption in the year ended June 30, 2020. The net result as of July 1, 2020 is that the market value of assets is \$176.2 million less than the actuarial value of assets. This \$176.2 million in unrecognized asset losses will either offset any future investment gains or, if there are none, increase the amortization period of the UAAL in future valuations.

As of July 1, 2020, the System's Actuarial Value of Assets increased by 124.5 million from \$4.220 billion at July 1, 2019 to \$4.344 billion at July 1, 2020. The Actuarial Accrued Liability at July 1, 2020 was \$6.310 billion. This resulted in an UAAL of \$1.966 billion at July 1, 2020. This was a net increase in the unfunded position of \$36.9 million compared to July 1, 2019.

TEACHERS' RETIREMENT SYSTEM
A COMPONENT UNIT OF THE STATE OF MONTANA
STATEMENT OF FIDUCIARY NET POSITION
AS OF JUNE 30, 2020

	2020
Assets	
Cash/Cash Equivalents-Short Term	
Investment Pool (Note B)	\$33,379,098
Receivables:	
Accounts Receivable	17,091,113
Interest Receivable	24,500
Total Receivables	\$17,115,613
Investments, at Fair Value: (Note B)	
Equity in Pooled Investments	\$4,116,676,679
Securities Lending Collateral (Note B)	21,964,282
Total Investments	\$4,138,640,961
Assets Used in Plan Operations:	
Land and Buildings	\$980,133
Less: Accumulated Depreciation	(174,099)
Equipment and Intangible Assets	1,808,630
Less: Accumulated Depreciation/Amortization	(16,286)
Total Other Assets	2,598,377
Total Assets	\$4,191,734,050
Pension Deferred Outflows (Note E)	\$252,636
OPEB Deferred Outflows (Note G)	\$28,980
Liabilities	
Accounts Payable	\$165,428
Accrued Liability	1,000
Securities Lending Liability (Note B)	21,964,282
Compensated Absences (Note B)	195,074
OPEB Implicit Rate Subsidy (Note G)	88,643
Net Pension Liability (Note E)	1,457,558
Total Liabilities	\$23,871,985
Pension Deferred Inflows (Note E)	\$225,069
OPEB Deferred Inflows (Note G)	\$79,054
Net Position Restricted for Pension Benefits	\$4,167,839,558

The accompanying Notes to the Financial Statements is an integral part of this financial statement.

TEACHERS' RETIREMENT SYSTEM
A COMPONENT UNIT OF THE STATE OF MONTANA
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED JUNE 30, 2020

	2020
Additions	
Contributions:	
Employer	\$102,420,318
Plan member	80,194,548
Other	45,948,388
Total Contributions	<u>\$228,563,253</u>
Miscellaneous Income	<u>\$51,927</u>
Investment Income:	
Net Appreciation/(Depreciation) in Fair Value of Investments	\$133,248,493
Investment Earnings	1,399,499
Security Lending Income (Note B)	476,125
Investment Income/(Loss)	<u>135,124,117</u>
Less: Investment Expense	(22,281,715)
Less: Security Lending Expense (Note B)	<u>(253,757)</u>
Net Investment Income/(Loss)	<u>112,588,645</u>
Total Additions	<u>341,203,826</u>
Deductions	
Benefit Payments	\$384,396,941
Withdrawals	5,171,751
Administrative Expense	3,767,693
OPEB Expense (Note G)	1,212
Pension Expense (Note E)	202,944
Total Deductions	<u>\$393,540,541</u>
Net Increase (Decrease) in Fiduciary Net Position	(\$52,336,715)
Net Position Restricted for Pension Benefits	
Beginning of the Year	\$4,220,285,808
Prior Period Adjustment (Note B)	<u>(109,535)</u>
Net Position End of Year	<u>\$4,167,839,558</u>

The accompanying Notes to the Financial Statements is an integral part of this financial statement.

**TEACHERS' RETIREMENT SYSTEM
A COMPONENT UNIT OF THE STATE OF MONTANA
NOTES TO THE FINANCIAL STATEMENTS
FISCAL YEAR ENDED JUNE 30, 2020**

Note A. Description of the Plan

Teachers' Retirement System (TRS or the System) is a mandatory-participation multiple-employer cost-sharing defined-benefit public pension plan that provides retirement services to individuals employed as teachers, administrators, and in other professional and skilled positions employed in public education in Montana.

The Teachers' Retirement System Board (the Board) and staff administer the retirement system in conformity with the laws set forth in Title 19, chapter 20 of the Montana Code Annotated, and administrative rules set forth in Title 2, chapter 44 of the Administrative Rules of Montana. Additional information pertaining to membership, benefit structure, and prior years' actuarial valuations, as well as links to applicable statutes and administrative rules may be obtained by visiting the TRS web site at www.trs.mt.gov.

The Montana Board of Investments (MBOI) manages the State's Unified Investment Program, which includes the TRS plan investments as required by §19-20-501, MCA. Per the Montana Constitution, Article VIII Section 13(3), investment of TRS assets shall be managed in a fiduciary capacity in the same manner that a prudent expert acting in a fiduciary capacity and familiar with the circumstances would use in the conduct of an enterprise of a similar character with similar aims. MBOI's stand-alone financial statements and information on investment policies, investment activity, investment management fees, and a listing of specific investments owned by the pooled asset accounts can be obtained from the Montana Board of Investments, P.O. Box 200126, Helena, MT 59620-0126. The MBOI website can be found at investmentmt.com.

The Board is the governing body of the System. The System was established by the State of Montana in 1937 to provide retirement, death, and disability benefits to individuals employed in public education in Montana. TRS as an employer does not participate in the plan and acts only as the administrator of the plan.

Board Composition

The Board consists of six members, all appointed by the Governor. Three Board members must be teaching professionals who, when appointed, are active members of TRS; at least one of the active members must be an active classroom teacher. One Board member must be a retired teacher who was a member of TRS at the time of retirement. Two Board members are appointed from the public at large. TRS Board members serve staggered five-year terms. Three Board members constitutes a quorum.

Reporting Entities

At June 30, 2020, the number and type of reporting entities participating in the system were as follows:

Local School Districts, Counties, and Co-ops	352
Community Colleges	3
University System Units	2
State Agencies	7
Total	364

System Membership

At July 1, 2020, the date of the most recent actuarial valuation, system membership consisted of the following:

Retirees and Beneficiaries Currently Receiving Benefits	16,605
Terminated Members:	
Vested	1,828
Non-vested	14,941
Active Plan Members:	
Full-Time	13,515
Part-Time	6,236
Total Membership	53,125

Summary of Benefits

Through June 30, 2013, all members enrolled in TRS participated in a single-tiered plan (Tier One). In the Tier One plan, employees with a minimum of 25 years of service or who have reached age 60 with 5 years of service are eligible to receive an annual retirement benefit equal to creditable service years divided by 60 times the average final compensation. Final compensation is the average of the highest three consecutive years of earned compensation. Benefits fully vest after 5 years of creditable service. Vested employees may retire at or after age 50 and receive reduced retirement benefits.

Beginning July 1, 2013, new members in TRS participate in a second benefit tier (Tier Two), which differs from Tier One as follows:

- Tier Two uses a 5-year average final compensation (AFC) (as opposed to 3-year AFC in Tier One);
- Tier Two provides for unreduced service retirement benefits at age 60 with 5 years of creditable service or at age 55 with at least 30 years of creditable service (rather than at age 60 with 5 years of service or at any age with creditable service of 25 years in Tier One);
- Tier Two provides for early retirement benefits with 5 years of creditable service at age 55 (rather than age 50 in Tier One);
- Tier Two has a one percent higher normal employee contribution rate (though a temporary 1% supplemental employee contribution rate is also now currently in place for Tier One members), and
- Tier Two provides for an enhanced benefit calculation - $1.85\% \times \text{AFC} \times \text{years of creditable service}$ — for members retiring with at least 30 years of creditable service and at least 60 years of age (rather than $1.6667\% \times \text{AFC} \times \text{years of creditable service}$).

A guaranteed annual benefit adjustment (GABA) is payable on January 1st of each calendar year for each retiree who has received at least 36 monthly retirement benefit payments prior to that date. The GABA is applicable to both Tier One and Tier Two members. The GABA is calculated at 1.5% of the benefit payable as of January 1st. For Tier Two members, the GABA to be calculated each year may vary from 0.5% to 1.5% based on the retirement system's funding status and the period required to amortize any unfunded accrued actuarial liability as determined in the prior actuarial valuation.

Overview of Contributions

The TRS funding policy provides for monthly employee and employer contributions at rates specified by state law. Plan members, for the fiscal year ending June 30, 2020, were required to contribute 8.15% of their earned compensation. School district, education cooperative, county, and community college employers were required to contribute 9.07% of earned compensation. University System and State Agency employers were required to contribute 11.45% of earned compensation.

The TRS funding policy also provides for monthly supplemental contributions at rates specified by state law. The State's general fund contributes an additional 2.38% of earned compensation for school district and community college employees each month. The State's general fund also contributes an additional 0.11% of total earned compensation for all TRS members each month. These monthly general fund contributions along with an annual lump-sum contribution of \$25 million from the general fund make up the "Other" contribution category on the financial statements.

Each employer in the Montana University System contributes to TRS a supplemental employer contribution currently at a rate of 4.72% of the total compensation for employees participating in the Montana University System Retirement Program (MUS-RP).

Contribution rates for FY 2019, 2020, and 2021 for school district and community college employers are listed below.

Fiscal Year	Members	Employers	General Fund	Total
July 1, 2018– June 30, 2019	8.15%	8.97%	2.49%	19.61%
July 1, 2019– June 30, 2020	8.15%	9.07%	2.49%	19.71%
July 1, 2020– June 30, 2021	8.15%	9.17%	2.49%	19.81%

Contribution rates for FY 2019, 2020, and 2021 for state agencies and university system employers are listed below.

Fiscal Year	Members	Employers	General Fund	Total
July 1, 2018– June 30, 2019	8.15%	11.35%	0.11%	19.61%
July 1, 2019– June 30, 2020	8.15%	11.45%	0.11%	19.71%
July 1, 2020– June 30, 2021	8.15%	11.55%	0.11%	19.81%

Pursuant to §19-20-609, MCA, the employer contribution rate will increase by 0.10% each year beginning July 1, 2014 through fiscal year 2024.

Note B. Summary of Significant Accounting Policies

Basis of Accounting

Teachers' Retirement System, a fiduciary component unit Pension Trust Fund of the State of Montana financial reporting entity, prepares its financial statements using the accrual basis of accounting. Member contributions and employer contributions are recognized when due. Revenues are recorded in the accounting period in which they are earned, realized and become measurable in accordance with the terms of the System. Benefit payments and refunds are recognized in the accounting period in which they are due and payable in accordance with the benefit terms. Expenses are recognized in the period incurred. The System adheres to all applicable Governmental Accounting Standards Board (GASB) Statements.

GASB Statement No. 67 addresses accounting and financial reporting requirements for pension plans. The statement was first implemented for the year ended June 30, 2014. The statement required changes in presentation of the financial statements, notes to the financial statements, and required supplementary information. Significant changes included an actuarial calculation of total and net pension liability. It also included comprehensive footnote disclosures regarding the pension liability, the sensitivity of the net pension liability to the discount rate, and increased investment activity disclosures. The implementation of GASB Statement No. 67 did not significantly impact the accounting for accounts receivable and investment balances. The total pension liability, determined in accordance with GASB Statement No. 67, is presented in Note D.

Prior Period Adjustments

Prior period adjustments relate to corrections of errors and changes in accounting policy from prior periods. The System had an immaterial prior period adjustment recorded for the fiscal year ended June 30, 2020. The adjustment was recorded for the correction of TRS's OPEB Deferred Outflows, OPEB Deferred Inflows, and OPEB Expense from Fiscal Years 2018 - 2019. DOA State Accounting Bureau discovered an error in the calculation and allocation of OPEB Deferred Outflows, OPEB Deferred Inflows, and OPEB Expense that required a correcting entry to the account balances and corresponding equity account. The correction allowed for alignment with the State of Montana OPEB actuarial report issued each year. This correction of OPEB Deferred Outflows, OPEB Deferred Inflows, and OPEB Expenses balances decreased the TRS Net Position in the amount of \$109,535.

Compensated Absences

Compensated absences represent 100 percent of accrued vacation and 25 percent of accrued sick leave for TRS personnel. Compensated absences were recorded as a liability of \$195,074 at June 30, 2020.

Investments

The Montana Board of Investments (MBOI) manages the State's Unified Investment Program, which includes the TRS plan investments as required by §19-20-501, MCA. Per the Montana Constitution, Article VIII Section 13(3), investment of

TRS assets shall be managed in a fiduciary capacity in the same manner that a prudent expert acting in a fiduciary capacity and familiar with the circumstances would use in the conduct of an enterprise of a similar character with similar aims. Investments administered by MBOI for TRS are subject to MBOI's investment risk policies. MBOI's stand-alone financial statements and information on investment policies, investment activity, investment management fees, and a listing of specific investments owned by the pooled asset accounts can be obtained from the Montana Board of Investments, P.O. Box 200126, Helena, MT 59620-0126. The MBOI website can be found at investmentmt.com.

At June 30, 2020, TRS investments include the Short-Term Investment Pool (STIP) and the Consolidated Asset Pension Pool (CAPP).

Short-Term Investment Pool (STIP)

The Montana Public Retirement Plans investment in STIP will provide the Plans with exposure to Cash related investments. STIP will be managed internally by MBOI utilizing an active investment strategy. STIP invests primarily in short-term, high quality, fixed income securities with a maximum maturity of 397 days or less. Variable securities shall have a maximum maturity of 2 years. STIP shall maintain a dollar-weighted average portfolio maturity of 60 days or less. This Pool is managed to preserve principal while providing 24-hour liquidity for state agency and local government participants.

Consolidated Asset Pension Pool (CAPP)

CAPP invests directly in the underlying Pension Asset Classes (PACs) on behalf of the nine retirement systems within the MBOI Board-approved asset allocation ranges. Each PAC has an underlying set of MBOI Board-approved investment objectives and investment guidelines. Below is a short description of each PAC within the CAPP. For liquidity purposes, each PAC and external manager has a limited amount of cash/cash equivalents. With the exception of the Cash PAC, it is invested in the State Street Short Term Investment Fund (STIF), which invests in high quality short-term securities. For external managers, it is invested per MBOI established guidelines.

As part of the asset allocation approved by BOI in November 2019, the Private Equity PAC is now referred to as the Private Investments PAC and the High Yield PAC is referred to as the Non-Core Fixed Income PAC. The assets with the U.S. Treasury Inflation Protected Securities (TIPS) PAC, Investment Grade PAC, Agency Mortgage Backed Securities PAC, U.S. Treasury and Agency PAC, Diversifying Strategies PAC, and Broad Fixed Income PAC were combined into the Core Fixed Income PAC. These changes were effective in December 2019. These changes did not have an impact on the underlying value of securities with the impacted PAC's.

Domestic Equity PAC

Invests primarily in US traded equity securities such as common stock. The type of portfolio structures utilized are separately managed accounts, commingled accounts, limited partnerships, or limited liability companies, and exchange traded funds.

International Equity PAC

Invests primarily in international equity securities that trade on foreign exchanges in developed and emerging markets. The type of portfolio structures utilized are separately managed accounts, commingled accounts, limited partnerships, or limited liability companies, and exchange traded funds.

Private Investments PAC

Invests in the entire capital structure of private companies. The type of portfolio structures include private partnership interests, separate accounts, commingled funds and exchange traded funds. The investments typically have well-defined strategies such as buyout, venture, or distressed debt. Private Equity investments are considered long-term. Exchange traded funds are utilized to minimize the cash position.

Real Estate PAC

Invests primarily in real estate properties. The type of portfolio structures include private partnership interests, real estate investment trusts (REITs), separate accounts, commingled funds and exchange traded funds. The funds typically have well-defined strategies such as core, value-add, or opportunistic. Real Estate investments generally require long, time horizon to realize the value of the assets. Exchange traded funds are utilized to minimize the cash position.

Natural Resources PAC

Invests in energy, timber investments or other commodity related assets. The type of portfolio structures include private partnership interests, separate accounts, commingled funds and exchange traded funds. Natural Resources investments generally require a long, time horizon to realize the value of the asset.

Core Fixed Income PAC

Invests primarily in marketable, publicly traded, investment grade fixed income securities denominated in U.S. dollars. The type of portfolio structures include internally managed portfolios or externally managed separate accounts, commingled funds and limited partnerships.

Non-Core Fixed Income PAC

Invests primarily in marketable, publicly traded, high yield corporate debt, emerging market debt, convertible debt and preferred securities. The type of portfolio structures include separately managed accounts, commingled accounts, and limited partnerships.

Cash PAC

Invests primarily in highly liquid, money-market type securities. The type of portfolio structures include the internally managed Short Term Investment Pool (STIP) or cash vehicles managed through BOI's custodian or other Security Exchange Commission registered U.S. government money market funds.

TRS Investment Portfolio
June 30, 2020

Investment		Fair Value
Short-Term Investment Pool	\$	20,966,550
Consolidated Asset Pension Pool		4,116,676,679
Total		\$ 4,137,643,229

Consolidated Asset Pension Pool (CAPP)

CAPP is an internal investment pool managed and administered under the direction of the Montana Board of Investments (MBOI) as statutorily authorized by the Unified Investment Program. CAPP is a commingled internal investment pool and only the retirement systems can participate in CAPP. As necessary, redemptions are processed by MBOI in order to maintain required asset allocations and to provide liquidity for retirement benefits. The fair values of the investments in this category have been determined using the Net Asset Value (NAV) per share (or its equivalent) of the investment.

Short Term Investment Pool (STIP)

STIP is an external investment pool managed and administered under the direction of MBOI as statutorily authorized by the Unified Investment Program. It is a commingled pool for investment purposes and participant requested redemptions from the pool are redeemed the next business day. The fair values of the investments in this category have been determined using the NAV per share (or its equivalent) of the investment.

Refer to the fair value measurement note disclosures within MBOI's annual financial statements for the underlying investments within the fair value hierarchy. The hierarchy is no longer specific to pools. BOI displays the hierarchy in the aggregate for all investment pools.

Investments Measured at Fair Value

Investments	6/30/2020	Fair Value Measurements Using "Quoted Prices in Active Markets for Identical Assets (Level 1)"	"Significant Other Observable Inputs (Level 2)"	"Significant Unobservable (Level 3)"
Total Investments by fair value level	\$ -	\$ -	\$ -	\$ -
Investments measured at the NAV				
Consolidated Asset Pension Pool (CAPP)	4,116,676,679			
Short Term Investment Pool (STIP)	20,966,550			
Total investments measured at the NAV	4,137,643,229			

Investments Measured at Net Asset Value

Investments	Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Consolidated Asset Pension Pool (CAPP)	4,116,676,679	-	Monthly	30 days
Short Term Investment Pool (STIP)	20,966,550	-	Daily	1 day
Total investments measured at the NAV	\$ 4,137,643,229			

Investment Risks

The investment risks for the pooled investments that TRS participates in are described in the following paragraphs. Investments are administered by MBOI, for TRS, as part of the State of Montana's Unified Investment Program. The MBOI Board approves all Investment Policy Statements (IPS), including risk policies. MBOI's stand-alone financial statements detail the investment risks associated with the securities held by the pools.

Custodial Credit Risk

Custodial credit risk is the risk that, in the event of the failure of the counter-party to a transaction, the entity will not be able to recover the value of the investment or collateral securities that are in the possession of an outside party. Per policy, the MBOI Board's custodial bank must have bank ratings from at least two Nationally Recognized Statistical Rating Organization (NRSROs) on an annual basis. As of June 30, 2020, all investments were recorded under the MBOI's name at their custodial bank, which met MBOI's minimum rating requirement.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributable to the magnitude of any single investment per issuer name. Investments explicitly guaranteed by the U.S. Government are excluded from the concentration of credit risk requirement. Concentration of credit risk is addressed within all IPS's as set by the MBOI Board.

The STIP IPS limits concentration to credit risk exposure by limiting portfolio investment types to 3% in an issuer except for U.S. Treasury and U.S. Agency securities as well as any repurchase agreements with a financial institution.

Credit Risk

Credit risk is defined as the risk that an issuer or other counter-party to an investment will not fulfill its obligation. With the exception of U.S. Government securities, the fixed income instruments in CAPP has credit risk as measured by major credit rating services. MBOI manages credit risk by constraining portfolio purchases within MBOI Board approved IPS's.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. Per MBOI policy, there are maximum restrictions that can be held on non-US securities in a foreign currency and only CAPP is allowed to have foreign currency exposure. According to the CAPP IPS, the Core Fixed Income Asset Class and Non-Core Asset Class sections have maximum restrictions that can be held. Currency exposures may be hedged, in a defensive

manner, at the discretion of the active managers to preserve the U.S. dollar value of investment made.

TRS' position in CAPP is approximately 35.3% at June 30, 2020. The Montana BOI CAPP investments in EURO cash and securities had a fair value of approximately \$195,490,000 at June 30, 2020. The Montana BOI CAPP had cash and securities with a foreign currency value of approximately \$687,500,000 at June 30, 2020.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. CAPP uses effective duration as a measure of interest rate risk for all fixed income portfolios and STIP uses the weighted average maturity.

According to the STIP investment policy "the STIP portfolio will minimize interest rate risk by:

- Structuring the investment portfolio so securities mature to meet cash requirements for ongoing operations thereby normally avoiding the need to sell securities on the open market prior to maturity;
- Maintaining a dollar-weighted average portfolio maturity (WAM) of 60 days or less (for this purpose, the date to the next coupon reset date will be used for all floating or variable rate securities), and
- STIP will maintain a reserve account."

The TRS investments subject to credit and interest rate risk at June 30, 2020 are categorized in the following table:

Investment	Fair Value 6/30/20	Credit Quality Rating 6/30/20	Effective Duration / Weighted Average Maturity 6/30/20
CAPP	4,116,676,679	N/R	N/A
STIP	20,966,550	N/R	0.13 yrs or 46 days WAM

With the exception of the U.S. Government securities, the fixed income instruments have credit risk as measured by major credit rating services. Obligations of the U.S. Government or obligation explicitly guaranteed by the U.S. Government are not considered to have credit risk and do not require disclosure of credit quality. For a more complete picture of the interest rate risk associated with CAPP please see the MBOI financial statements and IPSs. Interest rate risk is addressed within all IPS's as set by the MBOI Board. CAPP and STIP investments have been rated by investment security type. However, CAPP as an external investment pool and STIP as internal investment pool, have not been rated.

Securities Lending Activity

The MBOI is authorized by law to lend its securities and has contracted with the custodial bank, to lend the MBOI's securities to broker-dealers and other entities with a simultaneous agreement to return the collateral for the same securities in the future. The custodial bank is required to maintain collateral equal to 102% of the fair value of domestic securities and 105% of the fair value of international securities while the securities are on loan. On any day, including June 30th, the markets may move in a positive or negative direction resulting in under or over collateralization. The custodial bank compensates for market movement by recalculating on the following business day to meet the collateralization requirements. The MBOI and the custodial bank split the earnings 80% and 20% respectively, on securities lending activities. The MBOI retains all rights and risks of ownership during the loan period. The custodial bank indemnifies the MBOI's credit risk exposure to the borrowers. Only CAPP participates in security lending. There were no failures by any borrowers to return or pay distributions thereon during the period that resulted in a declaration and notice of default of the borrower. As of June 30, 2020, no securities were recalled and not yet returned.

Note C. Property and Equipment

Property and equipment consist of the amounts shown in the following table as of June 30, 2020. Assets under \$5,000 are expensed in the year purchased. Assets valued at \$5,000 or more are recorded at cost less straight-line depreciation/amortization over the estimated useful life of five to ten years.

TRS completed Phase II of its upgrade to the pension administration system project (M-Trust) in FY 2017. The system

upgrade was implemented on a modular basis with all modules completed by February 2017. In FY 2017 TRS initiated Phase III of the upgrade to the pension administration system project (M-Trust). The system upgrade was implemented on a modular basis with all modules completed by November 2019. The cost of implementing Phase II and Phase III of the M-Trust project as of June 30, 2020 is shown below and on the Basic Financial Statements in the Intangible Assets less Accumulated Amortization line items.

In July 2019 TRS moved to a new location. As part of the move, construction costs were incurred at the new location to make the space fit TRS business needs. TRS also completed an upgrade to the TRS owned building and office space at 1500 East 6th Avenue, Helena, MT. The costs of the leasehold improvements and the building improvements at June 30, 2020 are shown below and on the Basic Financial Statements as part of the Land and Buildings less Accumulated Depreciation line items.

Property and Equipment		2020
Land and Buildings	\$	980,133
Less: Accumulated Depreciation		(174,099)
Equipment		16,286
Less: Accumulated Depreciation		(16,286)
Intangible Assets		4,287,347
Less: Accumulated Amortization		(2,495,004)
Net Property and Equipment	\$	2,598,377

Operating Lease - Lessee

Operating leases are rental agreements where the payments are chargeable as rent and recorded as administrative expenses. TRS negotiated a 19-year lease for office space in February 2019, at the location of 100 North Park Avenue, Helena, MT. The lease is payable monthly and includes inflationary adjustments over the period of the lease. The lease agreement contains a termination clause whereby TRS can terminate the lease for any reason after June 30, 2022, by providing 729 days notice. For the fiscal year ended June 30, 2020 TRS lease payments were \$99,240. The following table shows the lease payments for the next five fiscal years.

Fiscal Year Ended June 30:		Total Lease Payments
2021	\$	108,262
2022	\$	149,711
2023	\$	154,202
2024	\$	158,828
2025	\$	163,593

Operating Lease - Lessor

TRS and DPHHS negotiated a 10-year lease for office space in April 2019 at the location of 1500 East 6th Avenue, Helena, MT. TRS owns the building and is the lessor. The lease is payable monthly and includes inflationary adjustments over the period of the lease. For the fiscal year ended June 30, 2020 TRS rental income was \$20,743. The following table shows the rental income for the next five fiscal years.

Fiscal Year Ended June 30:		Total Rental Income
2021	\$	124,456
2022	\$	128,190
2023	\$	132,035
2024	\$	135,996
2025	\$	140,076

Note D. Net Pension Liability — TRS Plan Reporting

Net Pension Liability — TRS Plan

Fiscal Year Ending June, 30 2020		
Total Pension Liability	\$	6,417,298,230
Fiduciary Net Position	\$	4,167,839,558
Net Pension Liability	\$	2,249,458,672
Ratio of Fiduciary Net Position to Total Pension Liability		64.95%

The net pension liability is the retirement system's total pension liability (TPL) determined in accordance with GASB No. 67 less the fiduciary net position (FNP). As of June 30, 2020, the TRS net pension liability is \$2,249,458,672. July 1, 2020 is the date of the actuarial valuation upon which the TPL is based. Roll forward procedures were not used.

Actuarial valuation of the ongoing System involves estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The most recent experience study was performed in May of 2018 for the five year period ending July 1, 2017. The Schedule of Net Pension Liability presents multi-year trend information about whether the plan's fiduciary net position is increasing or decreasing over time relative to the total pension liability. This schedule is presented in the Required Supplementary Information section.

Summary of Actuarial Assumptions – TRS Plan

The TPL as of June 30, 2020, is based on the results of an actuarial valuation date of July 1, 2020. There were several significant assumptions and other inputs used to measure the total pension liability. The actuarial assumptions used in the July 1, 2020, valuation were based on the results of the last actuarial experience study, dated May 3, 2018. Among those assumptions were the following:

Salary Increases*	3.25% to 7.76%
Investment Return	7.34%
Price Inflation	2.40%
Growth in Membership	0.00%
Post-retirement Benefit Increases (Starting Three Years After Retirement) - Tier 1 members	1.50%
Post-retirement Benefit Increases (Starting Three Years After Retirement) - Tier 2 members	0.50%
Interest on Member Accounts	5.00%

**Total Wage Increases include 3.25% general wage increase assumption and a range of 0.00% to 4.51% merit and longevity increases based on years of service.*

Target Allocations – TRS Plan

Asset Class	Target Asset Allocation (a)	Long-Term Expected Real Rate of Return Arithmetic Basis (b)	Portfolio Long-Term Expected Rate of Return* (a) x (b)
Domestic Equity	30.00%	6.19%	1.86%
International Equity	16.00%	6.92%	1.11%
Private Equity	14.00%	10.37%	1.45%
Natural Resources	4.00%	3.43%	0.14%
Real Estate	9.00%	5.74%	0.52%
Core Fixed Income	20.00%	1.57%	0.31%
Non-Core Fixed Income	5.00%	3.97%	0.20%
Cash	2.00%	0.11%	0.00%
Totals	100.00%		5.59%
Inflation			2.40%
Portfolio long-term expected rate of return			7.99%

**The portfolio long-term expected rate of return above of 7.99% differs from the total TRS long-term rate of return assumption of 7.34% (Discount Rate). The assumed rate of 7.34% is comprised of a 2.40% inflation rate and an expected long-term real rate of return of 4.94%.*

The long-term expected return on plan assets is reviewed as part of the regular experience studies prepared for the System. The most recent analysis, performed for the period covering fiscal years 2013 through 2017, is outlined in a report dated May 3, 2018. Several factors are considered in evaluating the long-term rate of return assumption, including long-term historical data, estimates inherent in current market data, and an analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation). Estimates of variability and correlations for each asset class, were developed by the System's investment consultant. These ranges were combined to develop the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation. The long-term rate of return assumption is intended to be a long-term assumption (30 to 50 years) and is not expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected returns in future years. The average long term capital market assumptions published in the Survey of Capital Market Assumptions 2020 Edition by Horizon Actuarial Service, LLC, yield a median real return of 4.94%. Assumed inflation is based on the intermediate inflation assumption of 2.4% in the 2020 OASDI Trustees Report used by the Chief Actuary for Social Security to produce 75 year cost projections. Combining these two results yields a nominal return of 7.34%.

The discount rate (long-term rate of return assumption) used to measure the total pension liability was 7.34%. The projection of cash flows used to determine the discount rate assumed that contributions from participating plan members, employers, and non-employer contributing entities will be made based on the Board's funding policy, which establishes the contractually required rates under Montana State Code. These rates are shown in the following tables. In addition to these contributions the State general fund will contribute \$25 million annually to the System payable July 1st of each year. Based on those assumptions, the System's fiduciary net position was projected to be adequate to make all the projected future benefit payments of current plan members through the year 2124. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. No municipal bond rate was used in determining the discount rate.

History of Legislated Contributions – School Districts, community colleges, counties, and education cooperatives by Percent of Covered Payroll

	Members	Employers	General Fund	Total
Prior to July 1, 2007	7.15%	7.47%	0.11%	14.73%
July 1, 2007 to June 30, 2009	7.15%	7.47%	2.11%	16.73%
July 1, 2009 to June 30, 2013	7.15%	7.47%	2.49%	17.11%
July 1, 2013 to June 30, 2014	8.15%	8.47%	2.49%	19.11%
July 1, 2014 to June 30, 2015	8.15%	8.57%	2.49%	19.21%

**History of Legislated Contributions – School Districts, community colleges, counties, and education cooperatives
by Percent of Covered Payroll**

	Members	Employers	General Fund	Total
July 1, 2015 to June 30, 2016	8.15%	8.67%	2.49%	19.31%
July 1, 2016 to June 30, 2017	8.15%	8.77%	2.49%	19.41%
July 1, 2017 to June 30, 2018	8.15%	8.87%	2.49%	19.51%
July 1, 2018 to June 30, 2019	8.15%	8.97%	2.49%	19.61%
July 1, 2019 to June 30, 2020	8.15%	9.07%	2.49%	19.71%
July 1, 2020 to June 30, 2021	8.15%	9.17%	2.49%	19.81%
July 1, 2021 to June 30, 2022	8.15%	9.27%	2.49%	19.91%
July 1, 2022 to June 30, 2023	8.15%	9.37%	2.49%	20.01%
July 1, 2023 to June 30, 2024	8.15%	9.47%	2.49%	20.11%

State and University Employers

	Members	Employers	General Fund	Total
Prior to July 1, 2007	7.15%	7.47%	0.11%	14.73%
July 1, 2007 to June 30, 2009	7.15%	9.47%	0.11%	16.73%
July 1, 2009 to June 30, 2013	7.15%	9.85%	0.11%	17.11%
July 1, 2013 to June 30, 2014	8.15%	10.85%	0.11%	19.11%
July 1, 2014 to June 30, 2015	8.15%	10.95%	0.11%	19.21%
July 1, 2015 to June 30, 2016	8.15%	11.05%	0.11%	19.31%
July 1, 2016 to June 30, 2017	8.15%	11.15%	0.11%	19.41%
July 1, 2017 to June 30, 2018	8.15%	11.25%	0.11%	19.51%
July 1, 2018 to June 30, 2019	8.15%	11.35%	0.11%	19.61%
July 1, 2019 to June 30, 2020	8.15%	11.45%	0.11%	19.71%
July 1, 2020 to June 30, 2021	8.15%	11.55%	0.11%	19.81%
July 1, 2021 to June 30, 2022	8.15%	11.65%	0.11%	19.91%
July 1, 2022 to June 30, 2023	8.15%	11.75%	0.11%	20.01%
July 1, 2023 to June 30, 2024	8.15%	11.85%	0.11%	20.11%

Pursuant to §19-20-609, MCA, the employer contribution rate will increase by 0.10% each year beginning July 1, 2014, through fiscal year 2024.

Sensitivity Analysis – TRS Plan

	1.0% Decrease (6.34%)	Current Discount Rate	1.0% Increase (8.34%)
Net Pension Liability	\$ 2,995,086,772	\$ 2,249,458,672	\$ 1,625,618,226

In accordance with GASB 67 regarding the disclosure of the sensitivity of the net pension liability to changes in the discount rate, the above table presents the net pension liability calculated using the discount rate of 7.34%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1.00% lower (6.34%) or 1.00% higher (8.34%) than the current rate.

Schedule of Investment Returns – TRS Plan

TRS Plan Schedule of Investment Returns	
2020	
Annual Money Weighted Rate Return, Net of Investment Expense	2.719%

The annual money-weighted rate of return on pension plan investments expresses investment performance, net of pension

plan investment expense, adjusted for the changing amounts actually invested.

Note E. Net Pension Liability – Employer Reporting

In accordance with GASB Statement 68, Accounting and Financial Reporting for Pensions, TRS is required to recognize and report certain amounts associated with their participation in the Public Employees' Retirement System (PERS). Statement 68 includes requirements to record and report employers' proportionate share of the collective Net Pension Liability, Pension Expense, Deferred Inflows and Deferred Outflows of resources associated with pensions.

In accordance with Statement 68, the State of Montana has a funding situation that is Special Funding whereby the State general fund provides statutorily required contributions to the PERS plan. Due to the existence of a special funding situation, TRS is required to report the portion of the State of Montana's proportionate share of the collective Net Pension Liability that is associated with TRS. The following table displays the amounts and the percentages of Net Pension Liability for the fiscal years ended June 30, 2020 and June 30, 2019 (reporting dates).

Net Pension Liability – PERS Plan

	Net Pension Liability as of 6/30/20	Net Pension Liability as of 6/30/19	Percent of Collective NPL as 6/30/20	Percent of Collective NPL as 6/30/19	Change in Percent of Collective NPL
TRS Proportionate Share	\$ 1,457,558	\$ 1,443,205	0.0697%	0.0691%	0.0006%
State of Montana Proportionate Share Associated with TRS	\$ 456,803	\$ 464,136	0.0219%	0.0222%	(0.0004%)
Total	\$ 1,914,361	\$ 1,907,341	0.0916%	0.0913%	0.0002%

At June 30, 2020, TRS recorded a liability of \$1,457,558 for its proportionate share of the Net Pension Liability. The Net Pension Liability was measured as of June 30, 2019, and the Total Pension Liability (TPL) used to calculate the Net Pension Liability was determined by an actuarial valuation as of June 30, 2018, with update procedures to roll forward the TPL to the measurement date of June 30, 2019. The roll forward procedure uses a calculation that adds the annual normal cost (also called the service cost), subtracts the actual benefit payments and refunds for the plan year, and then applies the expected investment rate of return for the year. The roll forward procedure will include the effects of any assumption changes and legislative changes. The update procedures are in conformity with Actuarial Standards of Practice issued by the Actuarial Standards Board.

TRS' proportion of the Net Pension Liability was based on the employer contributions received by PERS during the measurement period July 1, 2018 through June 30, 2019, relative to the total employer contributions received from all of PERS' participating employers. At June 30, 2020, the TRS' proportion was 0.0697 percent.

Summary of Actuarial Assumptions – PERS Plan

Changes in actuarial assumptions and methods:

- There were no changes in assumptions or other inputs that affected the measurement of the TPL.

Changes in benefit terms:

- There have been no changes in benefit terms since the previous measurement date.

Changes in proportionate share:

- There were no changes between the measurement date of the collective Net Pension Liability and TRS's reporting

date that are expected to have a significant effect on the TRS's proportionate share of the collective NPL.

Pension Expense – PERS Plan

	Pension Expense as of 6/30/20	
TRS Proportionate Share	\$	171,932
Proportionate Share of Montana State General Fund Appropriation Associated with TRS	\$	31,012
Total	\$	202,944

At June 30, 2020, TRS recognized a Pension Expense of \$202,944 for its proportionate share of the PERS' pension expense. TRS also recognized grant revenue of \$31,012 for the support provided by the State of Montana for the proportionate share of the general fund contributions made to PERS that are associated with TRS.

Deferred Inflows and Outflows - PERS Plan

At June 30, 2020, TRS reported its proportionate share of deferred outflows of resources and deferred inflows of resources related to TRS from the following sources:

	Deferred Outflows of Resources		Deferred Inflows of Resources	
Differences Between Expected and Actual Economic Experience	\$	69,114	\$	68,584
Changes in Actuarial Assumptions	\$	61,878	\$	0
Difference Between Projected and Actual Investment Earnings	\$	17,672	\$	0
Changes in Proportion and Differences Between TRS Contributions and Proportionate Share of Contributions	\$	0	\$	156,485
*Contributions Paid to PERS Subsequent to the Measurement Date—FY 2020 Contributions	\$	103,971	\$	0
Total	\$	252,635	\$	225,069

**Amounts reported as deferred outflows of resources related to pensions resulting from TRS's contributions in FY 2020 subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2021. Other amounts reported as deferred outflows and inflows of resources related to pensions will be recognized in pension expense as follows:*

Fiscal Year Ended June 30:	Amount Recognized as an Increase (or Decrease) to Pension Expense in Future Years
2021	\$ 9,073
2022	\$ (107,913)
2023	\$ 6,574
2024	\$ 15,861
2025	\$ —
Thereafter	\$ —

Plan Description – PERS Plan

The PERS-Defined Benefit Retirement Plan (DBRP), administered by the Montana Public Employee Retirement Administration (MPERA), is a multiple-employer, cost-sharing plan established July 1, 1945, and governed by Title 19, chapters 2 and 3, MCA. This plan provides retirement benefits to covered employees of the State, local governments, certain employees of the Montana University System, and school districts.

All new members are initially members of the PERS-DBRP and have a 12-month window during which they may choose to remain in the PERS-DBRP or join the PERS-DCRP by filing an irrevocable election. Members may not be members of both the defined contribution and defined benefit retirement plans. All new members from the universities also have a

third option to join the university system's Montana University System Retirement Program (MUS-RP). For members that choose to join the PERS-DCRP or the MUS-RP, a percentage of the employer contributions will be used to pay down the liability of the PERS-DBRP.

The PERS-DBRP provides retirement, disability, and death benefits to plan members and their beneficiaries. Benefits are established by state law and can only be amended by the Legislature. Benefits are based on eligibility, years of service, and highest average compensation. Member rights are vested after five years of service.

Summary of Benefits – PERS Plan

Eligibility for Benefit

Service retirement:

Hired prior to July 1, 2011:

- Age 60, 5 years of membership service;
- Age 65, regardless of membership service, or
- Any age, 30 years of membership service.

Hired on or after July 1, 2011:

- Age 65, 5 years of membership service;
- Age 70, regardless of membership service.

For PERS-DCRP Plan members are eligible for benefit at termination of service.

Early retirement, actuarially reduced:

Hired prior to July 1, 2011:

- Age 50, 5 years of membership service, or
- Any age, 25 years of membership service.

Hired on or after July 1, 2011:

- Age 55, 5 years of membership service.

Vesting

Five years of membership service.

For PERS-DCRP Plan, members are vested immediately for participant's contributions and attributable income. Member's must have 5 years of membership to become eligible for the employer's contributions to individual accounts and attributable income.

Member's Highest Average Compensation (HAC)

Hired prior to July 1, 2011 - highest average compensation during any consecutive 36 months;

Hired on or after July 1, 2011 - highest average compensation during any consecutive 60 months;

Hired on or after July 1, 2013 - 110% annual cap on compensation considered as part of a member's highest average compensation.

Monthly Benefit Formula

Members hired prior to July 1, 2011:

Less than 25 years of membership service:

- 1.785% of HAC per year of service credit;

25 years of membership service or more:

- 2% of HAC per year of service credit.

Members hired on or after July 1, 2011:

Less than 10 years of membership service:

- 1.5% of HAC per year of service credit.

10 years or more, but less than 30 years of membership service:

- 1.785% of HAC per year of service credit.

30 years or more of membership service:

- 2% of HAC per year of service credit.

For PERS-DCRP Plan member's benefit depend entirely on vesting and individual account balance. Various payout options are available, including: taxable lump-sum payouts, periodic payments, per member instructions and IRS permitted rollovers.

Guaranteed Annual Benefit Adjustment (GABA)

After the member has completed 12 full months of retirement, the member's benefit increases by the applicable percentage (provided below) each January, inclusive of other adjustments to the member's benefit.

- GABA is 3% for members hired prior to July 1, 2007.
- GABA is 1.5% for members hired on or after July 1, 2007
- Members hired on or after July 1, 2013:
 - (a) 1.5% for each year PERS is funded at or above 90%;
 - (b) 1.5% reduced by 0.1% for each 2.0% PERS is funded below 90%; and
 - (c) 0% whenever the amortization period for PERS is 40 years or more.

Overview of Contributions – PERS Plan

Rates are specified by state law for periodic member and employer contributions and are a percentage of the member's compensation. Contributions are deducted from each member's salary and remitted by participating employers. The State legislature has the authority to establish and amend contribution rates to the plan.

1. Member contributions to the system of 7.9% are temporary and will be decreased to 6.9% on January 1, following actuary valuation results that show the amortization period has dropped below 25 years and would remain below 25 years following the reduction of both the additional employer and additional member contribution rates.
2. Employer contributions to the system:
 - a. Effective July 1, 2014, following the 2013 Legislative Session, PERS-employer contributions increase an additional 0.1% a year and will continue over 10 years through 2024. The additional employer contributions including the 0.27% added in 2007 and 2009, will terminate on January 1, following an actuary valuation that shows the amortization period of the PERS-DBRP has dropped below 25 years and remains below the 25 years following the reduction of both the additional employer and member contributions rates.

- b. Effective July 1, 2013, employers are required to make contributions on working retirees' compensation. Member contributions for working retirees are not required.
3. Non-employer Contributions:
 - a. Special Funding
 - i. The State contributes 0.1% of members' compensation on behalf of local government entities.
 - ii. The State contributes 0.37% of members' compensation on behalf of school district entities.
 - iii. The state contributed a Statutory Appropriation from the General Fund of \$33,615,000.

Stand-Alone Statements – PERS Plan

The PERS financial information is reported in the Public Employees' Retirement Board's (PERB) Comprehensive Annual Financial Report for the fiscal year ended. It is available from the PERB at 100 North Park, PO Box 200131, Helena MT 59620-0131, 406-444-3154.

CAFR information including PERS stand-alone financial statements and the GASB 68 report can be found on their website at <http://mpera.mt.gov>

The latest actuarial valuation and experience study can also be found at their website at <http://mpera.mt.gov>

Actuarial Assumptions – PERS Plan

The Total Pension Liability measured as of June 30, 2019, is based on the results of an actuarial valuation date of June 30, 2018, with update procedures to roll forward the TPL to June 30, 2019. There were several significant assumptions and other inputs used to measure the TPL. The actuarial assumptions used in the valuation and roll-forward procedures were based on the results of the last actuarial experience study, dated May 2017, for the six year period July 1, 2010, to June 30, 2016. Among those assumptions were the following:

General Wage Growth*	3.50%
*Includes Inflation at	2.75%
Admin Expense as % of Payroll	0.26%
Merit Wage Increases	0% to 6.30%
Investment Return	7.65%
Post-retirement Benefit Increases	
3% for Members hired prior to July 1, 2007	
1.5% for Members hired on or after July 1, 2007	
After the member has completed 12 full months of retirement, the member's benefit increases by the applicable percentage (provided below) each January, inclusive of other adjustments to the member's benefit.	
<ul style="list-style-type: none"> • GABA is 3% for members hired prior to July 1, 2007. • GABA is 1.5% for members hired on or after July 1, 2007 • GABA is 1.5% for members hired on or after July 1, 2013 for each year PERS is funded at or above 90%. The 1.5% is reduced by 0.1% for each 2.0% PERS is funded below 90% • GABA is 0.0% for members hired on or after July 1, 2013 for each year the PERS amortization period is 40 years or more 	
Mortality assumptions among contributing members, service retired members and beneficiaries based on RP 2000 Combined Employee and Annuitant Mortality Tables projected to 2020 with scale BB, males set back 1 year.	
Mortality assumptions among disabled members are based on RP 2000 Combined Mortality Tables with no projections.	

Discount Rate – PERS Plan

The discount rate used to measure the Total Pension Liability was 7.65%. The projection of cash flows used to determine the discount rate assumed that contributions from participating plan members, employers, and non-employer contributing entities will be made based on the PERS Board's funding policy, which establishes the contractually required rates under Montana Code Annotated. The State contributes 0.10% of salaries for local governments and 0.37% for school districts. In addition, the State contributes a statutory appropriation from the general fund. Based on those assumptions,

the PERS' fiduciary net position was projected to be adequate to make all the projected future benefit payments of current plan members through the year 2122. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability. No municipal bond rate was incorporated in the discount rate.

Target Allocations – PERS Plan

Asset Class	Target Asset Allocation	Long- Term Expected Real Rate of Return Arithmetic Basis
Cash Equivalents	3.0%	4.09%
Domestic Equity	36.0%	6.05%
Foreign Equity	18.0%	7.01%
Fixed Income	23.0%	2.17%
Private Equity	12.0%	10.53%
Real Estate	8.0%	5.65%

The long-term expected return on pension plan assets is reviewed as part of the regular experience studies prepared for the PERS. The most recent analysis, performed for the period covering fiscal years 2011 through 2016, is outlined in a report dated May 5, 2017, which is located on the MPERA website. The long-term expected return on pension plan assets is reviewed as part of the regular experience studies prepared for the Plan. Several factors are considered in evaluating the long-term rate of return assumption including historical rates of return, rate of return assumptions adopted by similar public-sector systems, and by using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the target asset allocation as of June 30, 2019, are summarized in the Target Allocations - PERS Plan table above.

Sensitivity Analysis – PERS Plan

	1.0% Decrease (6.65%)	Current Discount Rate	1.0% Increase (8.65%)
TRS' Proportion of Net Pension Liability	\$ 2,094,095	\$ 1,457,558	\$ 922,628

In accordance with GASB 68 regarding the disclosure of the sensitivity of the net pension liability to changes in the discount rate, the above table presents the net pension liability calculated using the discount rate of 7.65%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1.00% lower (6.65%) or 1.00% higher (8.65%) than the current rate.

Summary of Significant Accounting Policies – PERS Plan

The Montana Public Employee Retirement Administration (MPERA) prepares its financial statements using the accrual basis of accounting. For the purposes of measuring the Net Pension Liability, deferred inflows of resources and deferred outflows of resources related to pensions, Pension Expense, information about the fiduciary net position, and additions to/deductions from fiduciary net position have been determined on the same accrual basis as they are reported by MPERA. For this purpose, member contributions are recognized in the period in which contributions are due. Employer contributions are recognized when due and the employer has made a formal commitment to provide the contributions. Revenues are recognized in the accounting period they are earned and become measurable. Benefit payments and refunds are recognized in the accounting period when due and payable in accordance with the benefit terms. Expenses are recognized in the period incurred. Investments are reported at fair value. MPERA adheres to all applicable Governmental Accounting Standards Board (GASB) statements.

Defined Contribution Plan – PERS Plan

TRS contributed to the state of Montana Public Employee Retirement System Defined Contribution Retirement Plan (PERS-DCRP) for TRS employees that have elected the DCRP. The PERS-DCRP is administered by the Public Employees Retirement Board and is reported as a multiple-employer plan established July 1, 2002, and governed by Title 19, chapters 2 & 3, MCA.

All new PERS members are initially members of the PERS-DBRP and have a 12-month window during which they may choose to remain in the PERS-DBRP or join the PERS-DCRP by filing an irrevocable election. Members may not be participants of both the defined benefit and defined contribution retirement plans.

Member and employer contribution rates are specified by state law and are a percentage of the member's compensation. Contributions are deducted from each member's salary and remitted by participating employers. The Montana Legislature has the authority to establish and amend contribution rates. For the year ended June 30, 2020 member contributions were 7.9% of gross compensation and Employers contributed 8.77% of gross compensation on behalf of DCRP members.

Benefits are dependent upon eligibility and individual account balances. Participants are vested immediately in their own contributions and attributable income. Participants are vested after 5 years of membership service for the employer's contributions to individual accounts and the attributable income. Non-vested contributions are forfeited upon termination of employment per 19-3-2117(5), MCA. Such forfeitures are used to cover the administrative expenses of the PERS-DCRP.

At the plan level for the measurement period ended June 30, 2019, TRS did not recognize any net pension liability or pension expense for the defined contribution plan. Plan level non-vested forfeitures for the 320 employers that have participants in the PERS-DCRP totaled \$714,024.

Note F. TRS Plan Contributions

The TRS funding policy provides for monthly employee and employer contributions at rates specified by state law. Plan members, for the fiscal year ending June 30, 2020, were required to contribute 8.15% of their earned compensation and the employer contribution rate for School district, education cooperative, county, and community college employers for the fiscal year ending June 30, 2020, was 9.07% of earned compensation. For State Agency and University System employers, the employer contribution rate was 11.45% of members' earned compensation.

The State's general fund contributed an additional 2.38% of earned compensation for TRS members employed at school districts, community colleges, educational cooperatives, and counties in Montana. In addition, the State's general fund contributed 0.11% of earned compensation for all TRS members. The State's general fund also contributes a statutory supplemental contribution of \$25 million to TRS due on July 1st each year. Each employer in the Montana University System contributed 4.72% of earned compensation for all employees participating in the Montana University System Retirement Program (MUS-RP).

The TRS actuary determines the actuarial implications of the funding requirement in annual actuarial valuations. The actuarial method used to determine the implications of the statutory funding level is the entry age actuarial cost method, with both normal cost and amortization of the accrued liability determined as a level percentage of earned compensation. Contribution rates consist of an amount for normal cost, the estimated amount necessary to finance benefits earned by the members during the current year, and an amount for amortization of the unfunded actuarial accrued liability.

Contributions made by employers and members were in accordance with actuarially computed funding requirements. Information with regard to contributions to the System, for the year ended June 30, 2020, is indicated in the Required Supplemental Information, Schedule of Employer Contributions.

Note G. Other Post-Employment Benefits

Plan Description

TRS through the State of Montana provides optional post employment healthcare benefits in accordance with Section 2-18-704, MCA to the following employees and dependents who elect to continue coverage and pay administratively established contributions: (1) employees and dependents who retire under applicable retirement provisions and (2) surviving dependents of deceased employees. Medical, dental, and vision benefits are available through this plan. In accordance with GASB Statement No. 75, Accounting and Financial Reporting for Post Employment Benefits Other than Pensions, TRS is required to recognize and report certain amounts associated with their employees and dependents that are eligible to receive health care through the State Group Benefits Plan administered by the Montana Department of Administration. Statement 75 includes requirements to record and report employers' proportionate share of the collective Total OPEB Liability, OPEB Expense, and Deferred Outflows and Deferred Inflows of Resources associated with OPEB.

The State of Montana OPEB plan is not administered through a trust; as such, there are no plan assets accumulated to offset the total OPEB liability. The State of Montana OPEB plan is reported as single-employer plan.

The State of Montana pays for post employment healthcare benefits on a pay-as-you-go basis. Section 2-18-811, MCA gives authority for establishing and amending the funding policy to the Department of Administration for the State group health insurance plan. Plan coverage is on a calendar year basis. For GASB Statement No. 75 reporting, the State Group Benefits Plan is considered a single-employer plan.

As of December 31, 2019, the State Plan's administratively established retiree medical contributions vary between \$448 and \$1,777 per month depending on the medical plan selected, family coverage, and Medicare eligibility. Administratively established dental contributions vary between \$41.10 and \$70 and vision hardware contributions vary between \$7.64 and \$22.26 depending on the coverage selected. The plan is financed on a pay-as-you-go basis. Therefore, there are no investment objectives of the OPEB plan.

The following estimates were prepared based on an actuarial valuation prepared as of the year ending December 31, 2019 for the Department of Administration, with update procedures to roll forward the OPEB amounts to the measurement date of March 31, 2020. The resulting State of Montana Actuarial Valuation of Other Post-Employment Benefits (OPEB) contains the TRS data and is available through the following address.

Montana Department of Administration
State Accounting Division
Room 255, Mitchell Bldg
125 N Roberts Street
PO Box 200102
Helena, MT 59620-0102

Total OPEB Liability and Changes in Total OPEB Liability

TRS' Total OPEB Liability as of June 30, 2020 was \$88,643. TRS proportionate share of the collective Total OPEB Liability was 0.18724%. The basis on which TRS' proportionate share was calculated was by taking TRS calculated OPEB Liability as a percentage of the Total OPEB Liability.

The following table presents the Changes in the Total OPEB Liability:

Schedule of Changes in Total OPEB Liability		TRS
Balance as of 06/30/19	\$	135,851
Changes for the Year:		
Service Cost		1,819
Interest		3,786
Diff b/w Expected and Actual Experience		(48,486)
Changes of Assumptions and Other Inputs		(3,278)
Benefit Payments (Contributions)		(1,049)
Net Changes		(47,208)
Balance as of 06/30/20	\$	88,643

Actuarial assumptions and other inputs:

The total OPEB liability in the latest actuarial valuation dated December 31, 2019, the following assumptions and other inputs, applied to all periods included in the measurement, unless otherwise specified:

- Contributions: \$ 1,049
- Actuarial valuation date: December 31, 2019
- Experience Study Period: January 1, 2015 through December 31, 2017
- Actuarial measurement date*: March 31, 2020
- Actuarial cost method: Entry age normal funding method
- Amortization method: Open basis
- Remaining Amortization Period: 20 years
- Asset valuation method: Not applicable since no assets meet the definition of plan assets under GASB 75
- Actuarial Assumptions:
- Discount rate: 2.75%
- Projected payroll increases: 2.50%
- Participation: Future retirees 40.00%, Future eligible spouses 70.00%
- Marital status at retirement: 70.00%

* Update procedures were used to roll forward the total OPEB liability to the measurement date.

Mortality - Health: For the OPEB Plan, healthy mortality is assumed to follow the RP-2000 Healthy Annuitant Mortality Table for ages 50 and above and the RP-2000 Combined Healthy Annuitant Mortality Table for ages below 50, set back four years for males, set back two years for females, with mortality improvements projected by Scale BB to 2018. For all other groups, healthy mortality is assumed to follow the RP-2000 Combined Mortality Table with improvements projected by Scale BB to 2020, set back one year for males.

Mortality - Disabled: For the OPEB Plan, disabled mortality is assumed to follow the RP-2000 Disabled Mortality Table, set forward one year for males and set forward five years for females, with mortality improvements projected by Scale BB to 2018. For all other groups, disabled mortality is assumed to follow the RP-2000 Combined Mortality Table with no projections.

Changes in actuarial assumptions and methods since last measurement date:

- Changes in actuarial assumptions include a participation rate reduction from 55% to 40% based on recent experience study, a revision to rates per the Retirement System pension valuations as of July 1, 2019, and the interest/discount rate was based on the average of multiple March 31, 2020 municipal bond rate sources.

Changes in benefit terms since last measurement date:

- None

Sensitivity Analysis

Sensitivity of the total OPEB liability to changes in the discount rate:

The following table presents the total OPEB liability of TRS if it were calculated using a discount rate that is 1.00% lower (1.75%) or 1.00% higher (3.75%) than the current discount rate (2.75%):

Discount Rate	1% Decrease (1.75%)	Discount Rate (2.75%)	1% Increase (3.75%)
Total OPEB Liability	\$113,563	\$88,643	\$70,649

Sensitivity of the total OPEB liability to changes in the healthcare cost trend rates:

The following table presents the total OPEB liability of TRS if it were calculated using healthcare cost trend rates that are 1.00% lower (5.0%) or 1.00% higher (7.0%) than the current healthcare cost trend rate (6.0%):

Healthcare Rate	1% Decrease (5.00%)	Healthcare Rate (6.00%)	1% Increase (7.00%)
Total OPEB Liability	\$70,737	\$88,643	\$114,193

OPEB Expense

For the year ended June 30, 2020, TRS recognized an OPEB expense of \$1,212.

Deferred Outflow of Resources and Deferred Inflows of Resources Related to OPEB

At June 30, 2020, TRS recorded deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflow of Resources
Difference between expected and actual experience	\$0	\$56,734
Changes of assumptions of other inputs	\$28,980	\$22,320
*Benefit Payments associated with transactions subsequent to the measurement date of the total OPEB liability	\$0	\$0
Total	\$28,980	\$79,054

**Amounts reported as deferred outflows of resources related to OPEB resulting from TRS's Benefit Payments in FY 2020 (April 1, 2020 through June 30, 2020) subsequent to the measurement date will be recognized as a reduction of the net OPEB liability in the year ended June 30, 2021. Other amounts reported as deferred outflows and inflows of resources*

related to OPEB will be recognized in OPEB expense as follows:

Fiscal Year	Amount recognized as Increase or (Decrease) to OPEB Expense
2021	\$(4,393)
2022	\$(4,393)
2023	\$(4,393)
2024	\$(4,393)
2025	\$(4,393)
Thereafter	\$(28,109)

Note H. Pending Litigation

As of June 30, 2020, TRS had no pending litigation that would significantly affect the information presented in this financial report.

Note I. Subsequent Event

On October 30, 2020, TRS executed the sale of the building and property at 1500 East Sixth Ave. Helena, MT. The sale proceeds were \$1,410,000.

This page intentionally left blank.

TEACHERS' RETIREMENT SYSTEM
A COMPONENT UNIT OF THE STATE OF MONTANA REQUIRED SUPPLEMENTARY INFORMATION AND
NOTES TO REQUIRED SUPPLEMENTARY INFORMATION
FISCAL YEAR ENDED JUNE 30, 2020

Schedule of Changes in the Net Pension Liability – TRS Plan

	2020*	2019*	2018*
Total Pension Liability			
Service Cost	\$ 76,334,643	\$ 75,236,616	\$ 76,009,950
Interest	452,258,006	441,958,241	428,866,673
Benefit Changes	-	-	-
Difference Between Expected and Actual Experience	22,424,700	6,775,269	14,571,084
Changes of Assumptions	107,293,117	(6,059,430)	206,321,172
Benefit Payments	(384,396,941)	(367,779,905)	(352,854,025)
Refunds of Contributions	(5,171,751)	(6,008,447)	(5,322,642)
Net Change in Total Liability	268,741,774	144,122,344	367,592,212
Total Pension Liability Beginning	\$ 6,148,556,456	\$ 6,004,434,112	\$ 5,636,841,900
Total Pension Liability Ending (a)	\$ 6,417,298,230	\$ 6,148,556,456	\$ 6,004,434,112
Fiduciary Net Position			
Contributions - Employer	\$ 102,420,318	\$ 97,303,048	\$ 94,233,469
Contributions - Member	80,194,548	78,150,923	74,594,333
Contributions - Non-Employer Contributing Entities	45,948,388	45,495,334	45,005,672
Miscellaneous Income	51,927	31,040	31,829
Net Investment Income	112,588,645	227,892,287	343,720,833
Benefit Payments	(384,396,941)	(367,779,905)	(352,854,025)
Administrative Expenses	(3,767,693)	(2,947,109)	(2,849,527)
Refund of Contributions	(5,171,751)	(6,008,447)	(5,322,642)
Other	(204,156)	(174,476)	(157,777)
Net Change in Fiduciary Net Position	(52,336,715)	71,962,695	197,402,165
Fiduciary Net Position - Beginning	4,220,285,752	4,148,324,206	3,950,761,443
Prior Period Adjustment	(109,479)	(1,149)	160,598
Fiduciary Net Position - Ending (b)	\$ 4,167,839,558	\$ 4,220,285,752	\$ 4,148,324,206
Net Pension Liability - Ending (a - b)	\$ 2,249,458,672	\$ 1,928,270,704	\$ 1,856,109,906

	2017*	2016*	2015*	2014*
Total Pension Liability				
Service Cost	\$ 71,429,117	\$ 73,530,938	\$ 73,820,438	\$ 77,006,174
Interest	417,307,148	402,339,969	390,555,879	373,456,442
Benefit Changes	-	-	-	-
Difference Between Expected and Actual Experience	5,420,919	(5,245,998)	9,660,152	20,297,029
Changes of Assumptions	-	(12,445,656)	(4,670,553)	46,502,421
Benefit Payments	(333,633,717)	(320,810,259)	(303,675,300)	(285,182,358)
Refunds of Contributions	(7,355,344)	(5,086,816)	(5,368,359)	(4,788,688)
Net Change in Total Liability	153,168,123	132,282,178	160,322,257	227,291,020
Total Pension Liability Beginning	\$ 5,483,673,777	\$ 5,351,391,599	\$ 5,191,069,342	\$ 4,963,778,322
Total Pension Liability Ending (a)	\$ 5,636,841,900	\$ 5,483,673,777	\$ 5,351,391,599	\$ 5,191,069,342
Fiduciary Net Position				
Contributions - Employer	\$ 91,853,678	\$ 88,643,646	\$ 87,290,863	\$ 83,439,612
Contributions - Member	74,253,046	72,740,665	72,215,797	70,468,354
Contributions - Non-Employer Contributing Entities	44,414,109	43,902,606	43,389,534	64,923,320
Miscellaneous Income	27,504	29,123	27,297	6,000
Net Investment Income	427,042,359	71,487,661	165,684,953	540,277,362
Benefit Payments	(333,633,717)	(320,810,259)	(303,675,300)	(285,182,358)
Administrative Expenses	(2,459,458)	(2,318,818)	(2,035,081)	(2,022,636)
Refund of Contributions	(7,355,344)	(5,086,816)	(5,368,359)	(4,788,688)
Other	(211,532)	(142,849)	(140,631)	(58,073)
Net Change in Fiduciary Net Position	293,930,645	(51,555,041)	57,389,073	467,062,894
Fiduciary Net Position - Beginning	3,656,830,798	3,708,385,838	3,652,220,265	3,185,064,406
Prior Period Adjustment	-	-	(1,223,501)	92,965
Fiduciary Net Position - Ending (b)	\$ 3,950,761,443	\$ 3,656,830,798	\$ 3,708,385,838	\$ 3,652,220,265
Net Pension Liability - Ending (a - b)	\$ 1,686,080,457	\$ 1,826,842,979	\$ 1,643,005,761	\$ 1,538,849,077

*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Note to RSI - Schedule of Changes in the Net Pension Liability and Schedule of Net Pension Liability

The TPL contained in these schedules was provided by the Systems actuary, Cavanaugh Macdonald Consulting, LLC. The NPL is measured as the TPL less the amount of the FNP of the Retirement System. Prior to the fiscal year ended June 30, 2018, the Net Investment Income, Net Change in Fiduciary Net Position, and Prior Period Adjustment items in the Schedule of Changes in Fiduciary Net Position matched the Statement of Changes in Net position. However, there was a CAFR only adjustment in FY2018 that was issued by the BOI after the Schedule of Changes in Fiduciary Net Position above had been complete. The adjustment affected the Net Investment Income, Net Change in Fiduciary Net Position, and Prior Period Adjustment items by \$56,880 (the amount of the CAFR only adjustment).

Schedule of the Net Pension Liability – TRS Plan

	2020*		2019*		2018*		2017*	
Total Pension Liability	\$	6,417,298,230	\$	6,148,556,456	\$	6,004,434,112	\$	5,636,841,900
Fiduciary Net Position		4,167,839,558		4,220,285,752		4,148,324,206		3,950,761,443
Net Pension Liability	\$	2,249,458,672	\$	1,928,270,704	\$	1,856,109,906	\$	1,686,080,457
Ratio of Fiduciary Net Position to Total Pension Liability		64.95%		68.64%		69.09%		70.09%
Covered Payroll	\$	880,667,518	\$	857,467,932	\$	829,708,595	\$	818,122,561
Net Pension Liability as a Percentage of Covered-Employee Payroll		255.43%		224.88%		223.71%		206.09%

	2016*		2015*		2014*	
Total Pension Liability	\$	5,483,673,777	\$	5,351,391,599	\$	5,191,069,342
Fiduciary Net Position		3,656,830,798		3,708,385,838		3,652,220,265
Net Pension Liability	\$	1,826,842,979	\$	1,643,005,761	\$	1,538,849,077
Ratio of Fiduciary Net Position to Total Pension Liability		66.69%		69.30%		70.36%
Covered Payroll	\$	795,920,906	\$	768,718,699	\$	750,604,063
Net Pension Liability as a Percentage of Covered-Employee Payroll		229.53%		213.73%		205.01%

*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Schedule of Investment Returns – TRS Plan

	2020*	2019*	2018*	2017*
Annual Money Weighted Rate Return, Net of Investment Expense	2.719%	5.611%	8.880%	11.919%

	2016*	2015*	2014*
Annual Money Weighted Rate Return, Net of Investment Expense	1.986%	4.618%	17.18%

*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Schedule of Employer and Non-employer Contributing Entities Contributions – TRS Plan

	2020	2019	2018	2017	2016
Actuarially Determined Employer Contributions	\$ 148,368,706	\$ 143,107,320	\$ 139,239,141	\$ 136,267,787	\$ 132,546,252
Actual Contributions:					
Employers	102,420,318	97,303,048	94,233,469	91,853,678	88,643,646
Non-Employer Contributing Entities	\$ 45,948,388	\$ 45,495,334	\$ 45,005,672	\$ 44,414,109	\$ 43,902,606
Total	\$ 148,368,706	\$ 142,798,382	\$ 139,239,141	\$ 136,267,787	\$ 132,546,252
Annual Contribution Deficiency/ (Excess)	—	308,938	—	—	—
Covered Payroll	880,667,518	857,467,932	829,708,595	818,122,561	795,920,906
Actual Contributions as a Percentage of Covered-Employee Payroll	16.85%	16.65%	16.78%	16.66%	16.65%

	2015	2014	2013	2012	2011
Actuarially Determined Employer Contributions	\$ 130,680,397	\$ 148,362,932	\$ 130,533,530	\$ 108,993,492	\$ 91,879,263
Actual Contributions:					
Employers	87,290,863	83,439,612	74,113,191	72,422,404	72,879,950
Non-Employer Contributing Entities	\$ 43,389,534	\$ 64,923,320	\$ 17,521,347	\$ 16,843,766	\$ 17,437,366
Total	\$ 130,680,397	\$ 148,362,932	\$ 91,634,538	\$ 89,266,170	\$ 90,317,316
Annual Contribution Deficiency/ (Excess)	—	—	38,898,992	19,727,322	1,561,947
Covered Payroll	768,718,699	750,604,063	742,608,987	735,586,961	746,694,434
Actual Contributions as a Percentage of Covered-Employee Payroll	17.00%	19.77%	12.34%	12.14%	12.10%

Note to RSI - Schedule of Employer Contributions

The actuarially determined employer contributions and amount of those contributions actually made are presented in the schedule.

Note to RSI - Actuarial Assumptions – TRS Plan

The information presented in the required supplementary schedules was used in the actuarial valuation for purposes of determining the actuarially determined contribution rate. The assumptions and methods used for this actuarial valuation were recommended by the actuary and adopted by the Board. Additional information as of the latest actuarial valuation follows.

Changes of Benefit Terms – TRS Plan

The following changes to the plan provision were made as identified:

2013

The 2013 Montana Legislature passed HB 377, which provides additional revenue and creates a two-tier benefit structure. A Tier One Member is a person who first became a member before July 1, 2013, and has not withdrawn their member's account balance. A Tier Two Member is a person who first becomes a member on or after July 1, 2013, or after withdrawing their member's account balance, becomes a member again on or after July 1, 2013.

The GABA for Tier 1 members: permanent injunction limits application of the GABA reduction passed under HB 377.

The second tier benefit structure for members hired on or after July 1, 2013 is summarized below.

1. Final Average Compensation: average of earned compensation paid in five consecutive years of full-time service that yields the highest average.
2. Service Retirement: Eligible to receive a service retirement benefit if the member has been credited with at least five full years of creditable service and has attained the age of 60; or has been credited with 30 or more years of full-time or part-time creditable service and has attained age 55.
3. Early Retirement: Eligible to receive an early retirement allowance if a member is not eligible for service retirement, but has at least five years of creditable service and attained age 55.
4. Professional Retirement Option: if the member has been credited with 30 or more years of service and has attained the age of 60, the member is eligible for an enhanced allowance equal to 1.85% of average final compensation times all service at retirement. Otherwise, the multiplier used to calculate the retirement allowance will be equal to 1.67%.
5. Annual Contribution: 8.15% of member's earned compensation.
6. Supplemental Contribution Rate: On or after July 1, 2023, the TRS Board may require a supplemental contribution up to 0.5% if the following three conditions are met:
 - a. The average funded ratio of the System based on the last three annual actuarial valuations is equal to or less than 80%, and
 - b. The period necessary to amortize all liabilities of the System based on the latest annual actuarial valuation is greater than 20 years, and
 - c. A State or employer contribution rate increase or a flat dollar contribution to the Retirement System Trust fund has been enacted that is equivalent to or greater than the supplemental contribution rate imposed by the TRS Board.
7. Disability Retirement: A member will not be eligible for a disability retirement if the member is or will be eligible for a

service retirement on the date of termination.

8. **Guaranteed Annual Benefit Adjustment (GABA):**

- a. If the most recent actuarial valuation shows that Retirement System liabilities are at least 90% funded and the provision of the increase is not projected to cause the System's liabilities to be less than 85% funded, the GABA may increase from the 0.5% floor up to 1.5%, as set by the Board.

HB 377 increased revenue from the members, employers, and the State by means of the following changes:

- An annual State contribution equal to \$25 million paid to the System in monthly installments.
- A one-time contribution payable to the Retirement System by the trustees of a school district maintaining a retirement fund. The one-time contribution to the Retirement System shall be the amount earmarked as an operating reserve in excess of 20% of the adopted retirement fund budget for the fiscal year 2013. The amount received was \$22 million in FY 2014.
- A 1% supplemental employer contribution, which will increase the current employer rates as follows:
 - School district contributions will increase from 7.47% to 8.47%.
 - Montana University System and State agency contributions will increase from 9.85% to 10.85%.
 - Supplemental employer contributions will increase by 0.1% each fiscal year for fiscal year 2014 through fiscal year 2024. For fiscal years beginning after June 30, 2024, the total supplemental employer contribution will be equal to 2%.
- Members hired prior to July 1, 2013, (Tier One) under HB 377 are required to contribute a supplemental contribution equal to an additional 1% of the member's earned compensation.
- Each employer is required to contribute 9.85% of total compensation paid to all re-employed TRS retirees employed in a TRS reportable position to the System.

Changes in Actuarial Assumptions and Methods – TRS Plan

The following changes to the actuarial assumptions were adopted in 2020:

- The discount rate was lowered from 7.50% to 7.34%.
- The investment rate of return assumption was lowered from 7.50% to 7.34%.
- The inflation rate was reduced from 2.50% to 2.40%.

The following changes to the actuarial assumptions were adopted in 2019:

- The Guaranteed Annual Benefit Adjustment (GABA) for Tier Two members is a variable rate between 0.50% and 1.50% as determined by the Board. Since an increase in the amount of the GABA is not automatic and must be approved by the Board, the assumed increase was lowered from 1.50% to the current rate of 0.50% per annum.

The following changes to the actuarial assumptions were adopted in 2018:

- Assumed rate of inflation was reduced from 3.25% to 2.50%
- Payroll growth assumption was reduced from 4.00% to 3.25%
- Investment return assumption was reduced from 7.75% to 7.50%.
- Wage growth assumption was reduced from 4.00% to 3.25%
- Mortality among contributing members, service retired members, and beneficiaries was updated to the following:
 - For Males and Females: RP-2000 Healthy Combined Mortality Table projected to 2022 adjusted for partial credibility setback for two years.
The tables include margins for mortality improvement which is expected to occur in the future.
- Mortality among disabled members was updated to the following:
 - For Males: RP 2000 Disabled Mortality Table, set back three years, with mortality improvements projected by Scale BB to 2022.
 - For Females: RP 2000 Disabled Mortality Table, set forward two years, with mortality improvements projected by Scale BB to 2022.
- Retirement rates were updated
- Termination rates were updated
- Rates of salary increases were updated

The following changes to the actuarial assumptions were adopted in 2016:

- The normal cost method has been updated to align the calculation of the projected compensation and the total present value of plan benefits so that the normal cost rate reflects the most appropriate allocation of plan costs over future compensation.

The following changes to the actuarial assumptions were adopted in 2015:

- Correctly reflect the proportion of members that are assumed to take a refund of contributions upon termination and appropriately reflect the three year COLA deferral period for Tier 2 Members.
- The 0.63% load applied to the projected retirement benefits of the university members “to account for larger than average annual compensation increases observed in the years immediately preceding retirement” is not applied to benefits expected to be paid to university members on account of death, disability and termination (prior to retirement eligibility).
- The actuarial valuation was updated to reflect the assumed rate of retirement for university members at age 60 is 8.50% as stated in the actuarial valuation report.
- The actuarial valuation was updated to reflect the fact that vested terminations are only covered by the \$500 death benefit for the one year following their termination and, once again when the terminated member commences their deferred retirement annuity (they are not covered during the deferral period). Additionally, only the portion of the terminated members that are assumed to “retain membership in the System” are covered by the \$500 death benefit after termination.

The following changes to the actuarial assumptions were adopted in 2014:

- Assumed rate of inflation was reduced from 3.50% to 3.25%.
- Payroll Growth Assumption was reduced from 4.50% to 4.00%.
- Assumed real wage growth was reduced from 1.00% to 0.75%.
- Investment return assumption was changed from net of investment and administrative expenses to net of investment expenses only.
- Mortality among contributing members, service retired members, and beneficiaries was updated to the following:
 - For Males: RP 2000 Healthy Annuitant Mortality Table for ages 50 and above and the RP 2000 Combined Healthy Annuitant Mortality Table for ages below 50, set back four years, with mortality improvements projected by Scale BB to 2018.
 - For Females: RP 2000 Healthy Annuitant Mortality Table for ages 50 and above and the RP 2000 Combined Healthy Annuitant Mortality Table for ages below 50, set back two years, with mortality improvements projected by Scale BB to 2018.
- Mortality among disabled members was updated to the following:
 - For Males: RP 2000 Disabled Mortality Table for Males, set forward one year, with mortality improvements projected by Scale BB to 2018.
 - For Females: RP 2000 Disabled Mortality Table for Females, set forward five years, with mortality improvements projected by Scale BB to 2018.

**Note to RSI - Method and Assumptions Used in Calculations of
Actuarially Determined Contributions – TRS Plan**

Actuarial Cost Method	Entry Age
Amortization Method	Level Percentage of Pay, Open
Remaining Amortization Period	29 years
Asset Valuation Method	4-year Smoothed Market
Inflation	2.50 Percent
Salary Increase	3.25 – 7.76 Percent, Including Inflation for Non-University Members and 4.25 Percent for University Members including inflation;
Investment Rate of Return	7.50 Percent, Net of Pension Plan Investment Expense, and Including Inflation

Schedule of Proportionate Share of the Net Pension Liability – TRS as Employer of PERS Plan

TRS' Proportion of the Net Pension Liability
TRS' Proportionate Share of the Net Pension Liability
State of Montana's Proportionate Share of the Net Pension Liability Associated With the TRS
Total NPL
Covered Payroll
TRS' Proportionate Share of the Net Pension Liability as a Percentage of Its Covered-Employee Payroll
Fiduciary Net Position as a Percentage of the Total Pension Liability

The amounts presented above for each fiscal year were determined as of June 30th, the measurement date. Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Schedule of Contributions – TRS as Employer of PERS Plan

Contractually Required Contributions
Contributions in Relation to the Contractually Required Contributions
Contribution Deficiency (Excess)
Covered Payroll
Contributions as a Percentage of Covered-Employee Payroll

The amounts presented above for each fiscal year were determined as of June 30th, the most recent fiscal year end. Schedule is intended to show information for 10 years. Additional years will be displayed as they become available

2020	2019	2018	2017	2016	2015
0.0697%	0.0691%	0.0896%	0.0882%	0.0843%	0.08102%
\$1,457,558	\$1,443,205	\$1,745,606	\$1,502,397	\$1,177,820	\$1,009,567
\$456,803	\$464,136	\$0	\$0	\$0	\$0
\$1,914,361	\$1,907,341	\$1,745,606	\$1,502,397	\$1,177,820	\$1,009,567
\$1,137,253	\$1,123,898	\$1,098,725	\$1,043,891	\$971,504	\$905,963
128.2%	128.4%	158.9%	143.9%	121.2%	111.4%
73.9%	73.5%	73.8%	74.7%	78.4%	79.9%

2020	2019	2018	2017	2016	2015
\$104,324	\$98,599	\$95,649	\$93,731	\$89,396	\$82,288
\$104,324	\$98,599	\$95,649	\$93,731	\$89,396	\$82,288
\$0	\$0	\$0	\$0	\$0	\$0
\$1,314,200	\$1,241,460	\$1,123,898	\$1,098,725	\$1,043,891	\$971,504
7.94%	7.94%	8.51%	8.53%	8.56%	8.47%

Note to RSI - Changes of Benefit Terms – PERS Plan

The following changes to the plan provision were made as identified:

2013 Legislative Changes:

Working Retirees - House Bill 95

- The law requires employer contributions on working retiree compensation.
- Member contributions are not required.
- Working retiree limitations are not impacted. PERS working retirees may still work up to 960 hours a year, without impacting benefits.

Highest Average Compensation (HAC) Cap - House Bill 97, effective July 1, 2013

- All PERS members hired on or after July 1, 2013, are subject to a 110% annual cap on compensation considered as part of a member's highest or final average compensation.
- All bonuses paid to PERS members on or after July 1, 2013, will not be treated as compensation for retirement purposes.

House Bill 454 - Permanent Injunction Limits Application of the GABA Reduction passed under HB 454

Guaranteed Annual Benefit Adjustment (GABA)

- After the member has completed 12 full months of retirement, the member's benefit increases by the applicable percentage (provided below) each January, inclusive of all other adjustments to the member's benefit.
- 3% for members hired prior to July 1, 2007.
- 1.5% for members hired on or after July 1, 2007, and before July 1, 2013.
- Members hired on or after July 1, 2013:
 - b. 1.5% each year PERS is funded at or above 90%;
 - c. 1.5% is reduced by 0.1% for each 2% PERS is funded below 90%, and
 - d. 0% whenever the amortization period for PERS is 40 years or more.

2015 Legislative Changes:

General Revisions - House Bill 101, effective January 1, 2016

Second Retirement Benefit

1. Applies to PERS members who return to active service on or after January 1, 2016. Members who retire before January 1, 2016, return to PERS-covered employment and accumulate less than 2 years of service credit before retiring again:
 - refund of member's contributions from second employment plus regular interest (currently 0.25%);
 - no service credit for second employment;
 - start same benefit amount the month following termination, and
 - GABA starts again in the January immediately following second retirement.
2. For members who retire before January 1, 2016, return to PERS-covered employment and accumulate two or more years of service credit before retiring again:
 - member receives a recalculated retirement benefit based on laws in effect at second retirement, and
 - GABA starts in the January after receiving recalculated benefit for 12 months.
3. For members who retire on or after January 1, 2016, return to PERS-covered employment and accumulate less than 5 years of service credit before retiring again:
 - refund of member's contributions from second employment plus regular interest (currently 0.25%);
 - no service credit for second employment;
 - start same benefit amount the month following termination, and
 - GABA starts again in the January immediately following second retirement.

4. For members who retire on or after January 1, 2016, return to PERS-covered employment and accumulate five or more years of service credit before retiring again:
 - member receives same retirement benefit as prior to return to service;
 - member receives second retirement benefit for second period of service based on laws in effect at second retirement, and
 - GABA starts on both benefits in January after member receives original and new benefit for 12 months.

Employer Contributions and the Defined Contribution Plan

The Plan Choice Rate (PCR) was paid off effective March 2016 and the contributions of 2.37%, .47%, and the 1.0% increase previously directed to the PCR are now directed to the Defined Contribution or MUS-RP member's account.

2017 Legislative Changes:

Working Retiree Limitations

If a PERS retiree returns as an independent contractor to what would otherwise be PERS-covered employment, general contractor overhead costs are excluded from PERS working retiree limitations.

Refunds

1. Terminating members eligible to retire may, in lieu of receiving a monthly retirement benefit, refund their accumulated contributions in a lump sum.
2. Terminating members with accumulated contributions between \$200 and \$1,000 who wish to rollover their refund must do so within 90 days of termination of service.
3. Trusts, estates, and charitable organizations listed as beneficiaries are entitled to receive only a lump-sum payment.

Interest credited to member accounts

Effective July 1, 2017, the interest rate credited to member accounts increased from 0.25% to 0.77%.

Lump-sum payouts

Effective July 1, 2017, lump-sum payouts in all systems are limited to the member's accumulated contributions rather than the present value of the member's benefit.

Disabled PERS Defined Contribution (DC) Members

PERS members hired after July 1, 2011 have a normal retirement age of 65. PERS DC members hired after July 1, 2011 who became disabled were previously only eligible for a disability benefit until age 65. Effective July 1, 2017, these individuals will be eligible for a disability benefit until they reach 70, thus ensuring the same 5-year time period available to PERS DC disabled members hired prior to July 1, 2011 who have a normal retirement age of 60 and are eligible for a disability benefit until age 65.

PERS Statutory Appropriation – House Bill 648, effective July 1, 2017

Revenue from coal severance taxes and interest income from the coal severance tax permanent fund previously statutorily-appropriated to the PERS defined benefit trust fund will be replaced with the following statutory appropriations:

1. FY2018 - \$31.386 million
2. FY2019 - \$31.958 million
3. Beginning July 1, 2019 through at least June 30, 2025, 101% of the contribution from the previous year from the general fund to the PERS defined benefit trust fund, as follows:
 - a. FY2020 - \$32.277 million
 - b. FY2021 - \$32.6 million
 - c. FY2022 - \$32.926 million
 - d. FY2023 - \$33.255 million
 - e. FY2024 - \$33.588 million
 - f. FY2025 - \$33.924 million

Note to RSI – Changes in Actuarial Assumptions and Methods - PERS Plan

Method and assumptions used in calculations of actuarially determined contributions

The following Actuarial Assumptions were adopted from the June 30, 2017 actuarial valuation:

General Wage Growth*	3.50%
Investment Rate of Return*	7.65%
*Includes inflation at	2.75%
Merit salary increases	0% to 8.47%
Asset valuation method	4-year smoothed market
Actuarial cost method	Entry age Normal
Amortization method	Level percentage of payroll, open
Remaining amortization period	30 years
Mortality (Healthy members)	For Males and Females: RP 2000 Combined Employee and Annuitant Mortality Table projected to 2020 using Scale BB, males set back 1 year
Mortality (Disabled members)	For Males and Females: RP 2000 Combined Mortality Table
Admin Expense as % of Payroll	0.26%

Administrative expenses are recognized by an additional amount added to the normal cost contribution rate for the System. This amount varies from year to year based on the prior year's actual administrative expenses.

Other Post-employment Benefits Plan Information

	2020*	2019*	2018*
TRS Proportionate Share of the Total OPEB Liability	0.18724%	0.24391%	0.27378%
TRS Total OPEB Liability	\$88,643	\$135,851	\$138,145
Covered Payroll	\$1,307,760	\$1,123,898	\$1,098,725
TRS Total OPEB Liability as a percentage of covered payroll	6.78%	12.09%	12.57%

* The amounts presented above for each fiscal year were determined as of June 30th, the measurement date. Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Note to RSI – OPEB Information

The State of Montana OPEB plan is not administered through a trust; as such, there are no plan assets accumulated to offset the total OPEB liability. The State of Montana OPEB plan is reported as single-employer plan.

Actuarial assumptions and other inputs:

The total OPEB liability in the latest actuarial valuation dated December 31, 2020, the following assumptions and other inputs, applied to all periods included in the measurement, unless otherwise specified:

- Contributions: \$ 1,049
- Actuarial valuation date: December 31, 2019
- Experience Study Period: January 1, 2015 through December 31, 2017
- Actuarial measurement date*: March 31, 2020
- Actuarial cost method: Entry age normal funding method
- Amortization method: Open basis
- Remaining Amortization Period: 20 years
- Asset valuation method: Not applicable since no assets meet the definition of plan assets under GASB 75

- Actuarial Assumptions:
- Discount rate: 2.75%
- Projected payroll increases: 2.50%
- Participation: Future retirees 40.00%, Future eligible spouses 70.00%
- Marital status at retirement: 70.00%

* Update procedures were used to roll forward the total OPEB liability to the measurement date.

Mortality - Health: For the OPEB Plan, healthy mortality is assumed to follow the RP-2000 Healthy Annuitant Mortality Table for ages 50 and above and the RP-2000 Combined Healthy Annuitant Mortality Table for ages below 50, set back four years for males, set back two years for females, with mortality improvements projected by Scale BB to 2018. For all other groups, healthy mortality is assumed to follow the RP-2000 Combined Mortality Table with improvements projected by Scale BB to 2020, set back one year for males.

Mortality - Disabled: For the OPEB Plan, disabled mortality is assumed to follow the RP-2000 Disabled Mortality Table, set forward one year for males and set forward five years for females, with mortality improvements projected by Scale BB to 2018. For all other groups, disabled mortality is assumed to follow the RP-2000 Combined Mortality Table with no projections.

**TEACHERS' RETIREMENT SYSTEM
A COMPONENT UNIT OF THE STATE OF MONTANA
SUPPORTING SCHEDULES / SUPPLEMENTARY INFORMATION
FISCAL YEAR ENDED JUNE 30, 2020**

SCHEDULE OF ADMINISTRATIVE EXPENSES

Expenses for the administration of the plan, excluding compensated absences, depreciation and amortization are budgeted and approved by the TRS Board. The administrative costs of the TRS are financed through realized investment income. The expenses, less amortization of assets, may not exceed 1.50% of retirement benefits paid. Administrative expenses for the fiscal year ended June 30, 2020, were 0.98% of benefits paid. The administrative expenses by category are outlined below:

Administrative Expenses		2020
<hr/>		
Personal Services:		
Salaries	\$	1,237,928
Other Compensation		2,900
Employee Benefits		492,053
Total Budgeted Personal Services	\$	1,732,881
<hr/>		
Operating Expenses:		
Contracted Services	\$	781,648
Supplies and Material		146,771
Communications		111,907
Travel		17,838
Rent		131,228
Repair and Maintenance		12,729
Other Expenses		(22,420)
Total Budgeted Operating Expenses	\$	1,179,701
<hr/>		
Non-Budgeted Expenses:		
OPEB Contribution Expense	\$	(1,049)
OPEB Contribution Offset		9,856
Pension Contribution Offset		(104,324)
Compensated Absences		26,870
Amortization Expense		900,204
Depreciation Expense		23,554
Total Non-Budgeted Expenses	\$	855,111
<hr/>		
Total Administrative Expenses	\$	3,767,693
<hr/>		

SCHEDULE OF INVESTMENT EXPENSES

Investment	BOI	Custodial Bank	External Managers	Other	Total
Short-Term Investment Pool	\$ 11,293	\$ 5,484	N/A	\$ 71,239	\$ 88,017
Consolidated Asset Pension Pool	\$ 1,858,729	\$ 437,540	\$ 15,875,123	\$ 4,022,305	\$ 22,193,698
Totals	\$ 1,729,625	\$ 454,261	\$ 17,058,359	\$ 6,416,809	\$ 22,281,715

SCHEDULE OF PAYMENTS TO CONSULTANTS

Costs included in the table below are a result of administrative expenses, as well as several costs associated with the M-Trust project as of June 30, 2019.

	2020
Actuarial Services	\$ 139,923
Project Consulting Services	27,378
Legal Services	35,740
Audit Services	74,582
Medical Evaluations	200
IT Contracts	12,729
Non-Project IT Services and Consulting	144,000
Project IT Services and Consulting	235,575
Total Consultant Payments	\$ 670,127

Report on Internal Control and Compliance

LEGISLATIVE AUDIT DIVISION

B-1

Angus Maciver, Legislative Auditor
Deborah F. Butler, Legal Counsel



Deputy Legislative Auditors:
Cindy Jorgenson
William Soller

REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

The Legislative Audit Committee
of the Montana State Legislature:

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to the financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the Statement of Fiduciary Net Position and Statement of Changes in Fiduciary Net Position of the Teachers' Retirement Board (board), as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the board's basic financial statements, and have issued our report thereon dated December 22, 2020.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the board's internal control over financial reporting to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the board's internal control. Accordingly, we do not express an opinion on the effectiveness of the board's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal controls was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies

may exist that have not been identified.. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. We did identify certain deficiencies in internal control, described in Recommendation #1 beginning on page 5, that we consider to be a significant deficiency.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the system's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the board's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the board's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Respectfully submitted,

/s/ Cindy Jorgenson

Cindy Jorgenson, CPA
Deputy Legislative Auditor
Helena, MT

December 22, 2020

TEACHERS' RETIREMENT
BOARD

BOARD RESPONSE

TEACHERS' RETIREMENT SYSTEM



GREG GIANFORTE, GOVERNOR

www.trs.mt.gov

STATE OF MONTANA

100 N PARK AVENUE, SUITE 110
PO BOX 200139
HELENA, MONTANA 59620-0139

1-866-600-4045
406-444-3134

January 20, 2021

RECEIVED

JAN 20 2021

LEGISLATIVE AUDIT DIV.

Angus Maciver, Legislative Auditor
Legislative Audit Division
Room 160, State Capitol
PO Box 201705
Helena MT 59620-1705

Dear Mr. Maciver:

Thank you for the opportunity to reply to the financial audit report of the Teachers' Retirement Board for the fiscal year ending June 30, 2020. The Teachers' Retirement Board appreciates the services provided by your staff in conducting the audit.

We are pleased with the unmodified opinion on the financial statements for the fiscal year ending June 30, 2020 and I would like to thank you and Deputy Auditor Cindy Jorgenson along with your staff (Kelly Zwang, Shenae Stensaas, Katie Majerus and Jennifer Erdahl) for their professionalism and courtesy as they conducted the audit.

The audit report contains an unmodified opinion, which means the reader can rely on the information presented. The Legislative Auditors did, however, make one recommendation related to internal controls related to Employer wage and contribution reports and prior period adjustments. The Teachers' Retirement System has reviewed these findings and our response and corrective action plan is provided below.

Recommendation #1:

"We recommend that the board improve internal control procedures to ensure accurate contribution revenue, withdrawal expense, and prior period adjustments are reported in accordance with Generally Accepted Accounting Principles."

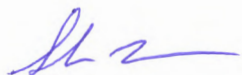
Response: Concur

TRS agrees that internal controls can be improved to identify material misstatements resulting from erroneous employer wage and contribution reporting and membership error adjustments.

Corrective Action:

The Teachers' Retirement System will perform analytical procedures to compare the amount of wages and contributions reported by employers to identify inconsistencies and work with employers to fix reporting issues prior to fiscal year end. If an employer reporting error is identified that would materially impact the TRS financials after fiscal year end has closed in future years, it will be recorded as a prior period adjustment.

Sincerely,



Shawn Graham
Executive Director
Teachers' Retirement System